Baldwin Park
Unified School District

Local Hazard Mitigation Plan

September 2004

Prepared by:

Ralph Andersen & Associates

A Tradition of Excellence Since 1972

Baldwin Park Unified School District

DATE: October 12, 2004

TO: Board of Education

FROM: Mark M. Skvarna, Superintendent

SUBJECT: Adoption of the Federal Disaster Mitigation Act of 2000 Plan

Submitted by: Mark M. Skvarna, Superintendent

Prepared by: Stephen R. Bayne, Captain, Baldwin Park School Police Department

Background

The Baldwin Park Unified School District has prepared a Federal Disaster Mitigation Act (D.M.A.) Plan to ensure effective pre-disaster steps be taken for the maximum protection of the district's population and structures, identifies potential hazards to the district, and provides strategies and goals to minimize their impact on the district. The Board previously approved Resolution #19 on April 6, 2004 in support of the D.M.A. 2K project.

Fiscal Impact

There is no fiscal impact to adopt this plan.

Recommendation

Mark M. Skvarna recommends approval of the Adoption of the Federal Disaster Mitigation Act of 2000 Plan.

Baldwin Park Unified School District

Resolution No. 19, 2003-2004

In Support of District Implementation of a Disaster Preparedness Plan in Compliance with the Federal Disaster Mitigation Act of 2000

WHEREAS, on October 30, 2000, the Disaster Mitigation Act of 2000 (the "DMA") was signed into law, amending provisions of the Robert T. Stafford Disaster Relief Act of 1988; and

WHEREAS, the DMA reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide; and

WHEREAS, the DMA focuses specifically on planning, and recognizes the significance of hazard mitigation planning at the local level, and the necessity for effective coordination between State and local entities to promote an integrated, comprehensive approach to mitigation planning; and

WHEREAS, the DMA requires local agencies like the Baldwin Park Unified School District (the "District") to develop a mitigation plan that includes a detailed District profile; identifies specific threats and vulnerabilities within the District; and sets forth specific mitigating measures for address such threats and vulnerabilities; and

WHEREAS, the District's DMA plan is to be reviewed annually by the District and every five years by federal authorities; and

WHEREAS, the DMA further requires detailed documentation of all actions, meetings, studies, and directives undertaken in the furtherance of the District's DMA plan; and

WHEREAS, the DMA includes new criteria for local mitigation planning, including the development and submittal of mitigation plans as a condition to receiving Hazard Mitigation Grant Program funds; and

WHEREAS, the safety of the District's students, faculty, and staff is of paramount importance to the Board of Education; and

WHEREAS, the Baldwin park Unified School District's Board of Education, Baldwin Park, California, **DOES HEREBY FIND, DETERMINE AND RESOLVE AS FOLLOWS:**

SECTION 1 The Board expresses its full support for, and willingness to devote appropriate resources to the DMA program and the adoption of a DMA plan for the District.

SECTION 2 The Board supports the active participation of all interested agencies, departments, community groups, and the public with respect to the DMA program.

SECTION 3 The Board shall hold public hearings, as necessary, to review and receive input on completed phases for the development of a DMA plan as well as further hearings for final review and adoption of such a plan.

SECTION 4 The Secretary shall certify to the passage and adoption of this resolution and thereupon the same shall take effect and be in full force.

PASSED, AND ADOPTED this 6th day of April, 2004, by the Governing Board of Baldwin Park Unified School District of Los Angeles County, California.

Roll Call Vote: Ayes 5 Noes 0 Abstain 0 Absent 0

Signed	April 6, 2004
Anthony J. Bejarano, President	Date
Signed	April 6, 2004
Sergio Corona, Clerk/Vice President	Date
Signed	April 6, 2004
Marco A. Dominguez, Ph.D., Member	Date
Signed	April 6, 2004
Blanca Estela Rubio, Member	Date
Signed	April 6, 2004
Jack B. White, Member	Date

Special Thanks and Acknowledgements

Federal Emergency Management Agency

California Office of Emergency Services

Office of Disaster Management Area D

El Monte City School District

City of Los Angeles, Emergency Preparedness Department

Table of Contents

Part I – Mitigation Action Plan

Executive Summary

Five-Year Action Plan Matrix

The Baldwin Park Unified School District Natural Hazards Mitigation Action Plan includes resources and information to assist District employees, and others interested in participating in planning for natural hazard events. The mitigation plan provides a list of activities that may assist Baldwin Park Unified School District in reducing risk and preventing loss from future natural hazard events. The action items address multi-hazard issues, as well as activities for earthquakes, flooding and severe weather occasions.

How is the Plan Organized?

The Mitigation Plan contains a five-year action plan matrix, background on the purpose and methodology used to develop the mitigation plan, a profile of Baldwin Park Unified School District, sections on three natural hazards that occur within the District, and a number of appendices. All of the sections are described in detail in the plan introduction.

Who Participated in Developing the Plan?

The Baldwin Park Unified School District Natural Hazards Mitigation Action Plan is the result of a collaborative effort between Baldwin Park Unified School District staff, public agencies, non-profit organizations, the private sector, and regional and state organizations. Public participation played a key role in the development of goals and action items. The public was invited for our plan input and reviewed at two of our District's School Board Meetings. A District Hazard Mitigation Steering Committee guided the process of plan development.

The Baldwin Park Unified School District Hazard Mitigation Steering Committee was comprised of the following representatives:

- Baldwin Park Unified School District, School Police Department
- Baldwin Park Unified School District, Director of Business, Risk Management and Benefits
- Area D Office of Disaster Management, Coordinator
- City of Baldwin Park Police Department, Emergency Services Coordinator
- City of Baldwin Park, Community Development Department, Principal Planner

- Baldwin Park Unified School District, Facilities and Maintenance
- Los Angeles County Fire Department, Fire Captain
- Baldwin Park Unified School District, Education Association
- California School Employee Association, Baldwin Park Unified School District Chapter

What is the Plan Mission?

The mission of the Baldwin Park Unified School District Natural Hazards Mitigation Plan is to promote sound public policy for Baldwin Park Unified School District designed to protect citizens, critical facilities, infrastructure, and the environment from natural hazards. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the District towards building a safer, more sustainable environment.

What are the Plan Goals?

The plan goals describe the overall direction that Baldwin Park Unified School District can take to work toward mitigation risk from natural hazards. The goals are stepping-stones between the broad direction of the mission statement and the specific recommendations outlined in the action items.

1) Protect Life and Property

- Implement activities that assist in protecting lives by making our schools, critical support facilities, and other property more resistant to losses from natural hazards.
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.
- Improve hazard assessment information to make recommendations for discouraging new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

2) Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on tools; partnership opportunities, and funding resources to assist in implementing mitigation activities.

3) Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.

- Encourage leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities.

4) Emergency Services

- Establish policy to ensure mitigation projects for critical school facilities, services, and infrastructure.

- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

- Coordinate and integrate natural hazard mitigation activities, where appropriate, with District emergency operations plans and procedures.

How are the Action Items Organized?

The action items are listed as activities in which the District can use to reduce risk. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that the District may implement with existing resources and authorities with one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

The action items are organized within the following matrix, which lists all of the multi-hazard and hazard-specific action items included in the mitigation plan. Data collection and research and public participation resulted in the development of these action items **(see Appendix B)**. The matrix includes the following information for each action item:

- **Coordinating Organization.** The coordinating organization is the District Administrative Department(s) with regulatory responsibility to address natural hazards, or that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. Coordinating organizations may include Business Services, Facilities Maintenance & Operations and Pupil Personnel Services that are capable of, or responsible for, implementing activities and programs.

- **Timeline.** Action items include both short- and long-term activities. Each action item includes an estimate of the timeline for implementation. Short-term action items are activities that the District is capable of implementing with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

- **Ideas for Implementation.** Each action item includes ideas for implementation and potential resources, which may include grant programs or human resources. The matrix includes the page number within the mitigation plan where the information can be found.

- **Plan Goals Addressed.** The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins. The plan goals are organized into the following five areas:

    1. Protect Life and Property

    2. Public Awareness

    3. Natural Systems

    4. Partnerships and Implementation

    5. Emergency Services

- **Partner Organizations.** The Partner Organizations are not listed with the individual action items or in the plan matrix. Partner Organizations are listed in ***Appendix A*** of this plan and are agencies or public/private sector organizations that may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization. The Partner Organizations listed in the Resource Director of the Baldwin Park Unified School District Natural Hazards Mitigation Plan are potential partners recommended by the District's Hazard Mitigation Steering Committee, but may not have been contacted during the development of the Mitigation Plan. Partner Organizations should be contacted by the coordinating organization to establish commitment of time and resources to action items.

- **Constraints.** Constraints may apply to some of the action items. These constraints may be a lack of District staff, lack of funds, or vested property rights, which might expose the District to legal action as a result of adverse impacts on private property.

How Will the Plan be Implemented, Monitored and Evaluated?

The Plan Maintenance Section of this document details the formal process that will ensure that the Baldwin Park Unified School District Natural Hazards Mitigation Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the District will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how Baldwin Park Unified School District intends to incorporate the mitigation strategies outlined in this Plan into existing planning mechanisms such as Building & Safety Codes updates and improvements and remodernization projects.

Plan Adoption

Once the plan is completed, the Baldwin Park Unified School District Board of Education will be responsible for adopting the ***"Baldwin Park Unified School District Natural Hazards Mitigation Plan."*** The District's Board of Education has the responsibility and authority to promote sound public policy regarding natural hazards. The District's Board of Education will periodically need to re-adopt the plan as it is revised to meet changes in the natural hazard risks and exposures in the community. The approved Natural Hazard Mitigation Plan will be significant in the future growth and development of the District.

Coordinating Body

A Baldwin Park Unified School District Hazard Mitigation Steering Committee will be responsible for coordinating implementation of Plan action items and undertaking the formal review process.

Convener

The Baldwin Park Unified School District Board of Education will adopt the Baldwin Park Unified School District Natural Hazard Mitigation Plan, and the District's Hazard Mitigation Steering Committee will take responsibility for plan implementation. The ___(need to appoint)___ will serve as a convener to facilitate these meetings of the Committee. Plan implementation and evaluation will be a shared responsibility among all of the District's Hazard Mitigation Steering Committee Members.

Implementation Through Existing Programs

Baldwin Park Unified School District addresses district-wide planning goals and legislative requirements through its Capital Improvement Plans, and State Building & Safety Codes. The Natural Hazard Mitigation Plan provides a series of recommendations that are closely related to the goals and objectives of these existing planning programs. Baldwin Park Unified School District will have the opportunity to implement recommended mitigation action items through existing programs and procedure.

Economic Analysis of Mitigation Projects

The Federal Emergency Management Agency's approach to identify costs and benefits associated with natural hazard mitigation strategies or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis. Conducting benefit/cost analysis for a mitigation activity can assist the District in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Formal Review Process

The Baldwin Park Unified School District Natural Hazards Mitigation Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process includes a firm schedule and timeline, and identifies the local agencies and organizations participating in plan evaluation. The Convener will be responsible for contacting the District's Hazard Mitigation Steering Committee members and organizing the annual meeting. Committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan.

Continued Public Involvement

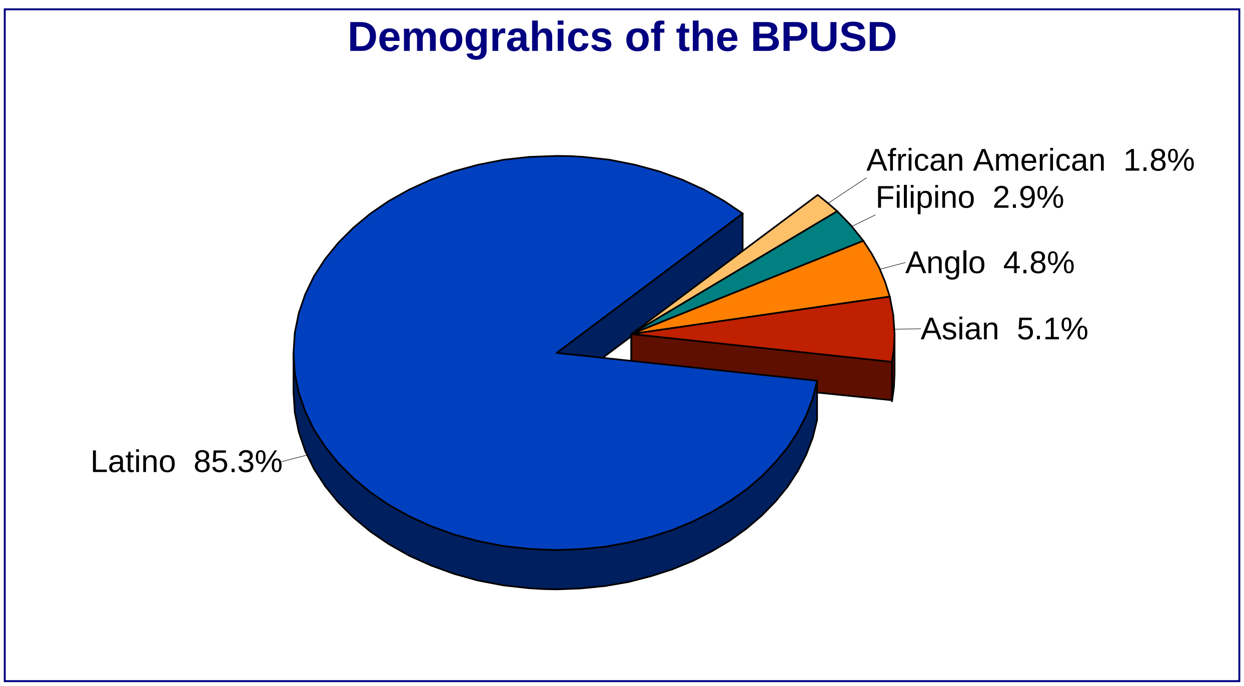
Baldwin Park Unified School District is dedicated to involving the public directly in the continual review and updates of the Hazard Mitigation Plan. Copies of the plan will be made available at the District administrative office and at each school site and District facility. In addition, copies of the Plan and any proposed changes will be posted on the Baldwin Park Unified School District website. This site will also contain an e-mail address and phone number to which people can direct their comments and concerns.

District Profile

The Baldwin Park Unified School District, a suburban school district serving children from pre-school through the twelfth grade, was unified in 1960. The City of Baldwin Park is comprised of an area of approximately 6.9 square miles located approximately 20 miles from downtown Los Angeles in the San Gabriel Valley.

The Baldwin Park Unified School District serves over 15,587 children from 12 elementary schools, a fundamental school, two middle schools, two junior high schools, two comprehensive high schools, a continuation high school, a Children's Center, a Latchkey program and a Headstart Program. The District also operates an award-winning Adult & Continuing Education Program. The District employs 1,089 classified employees and 1,022 certificated employees. The schools are organized as multiple sites.

District demographics, as shown in the graph below, include: 85% Latino, 5.1% Asian, 4.8% Anglo, 2.9% Filipino and 1.8 African American.



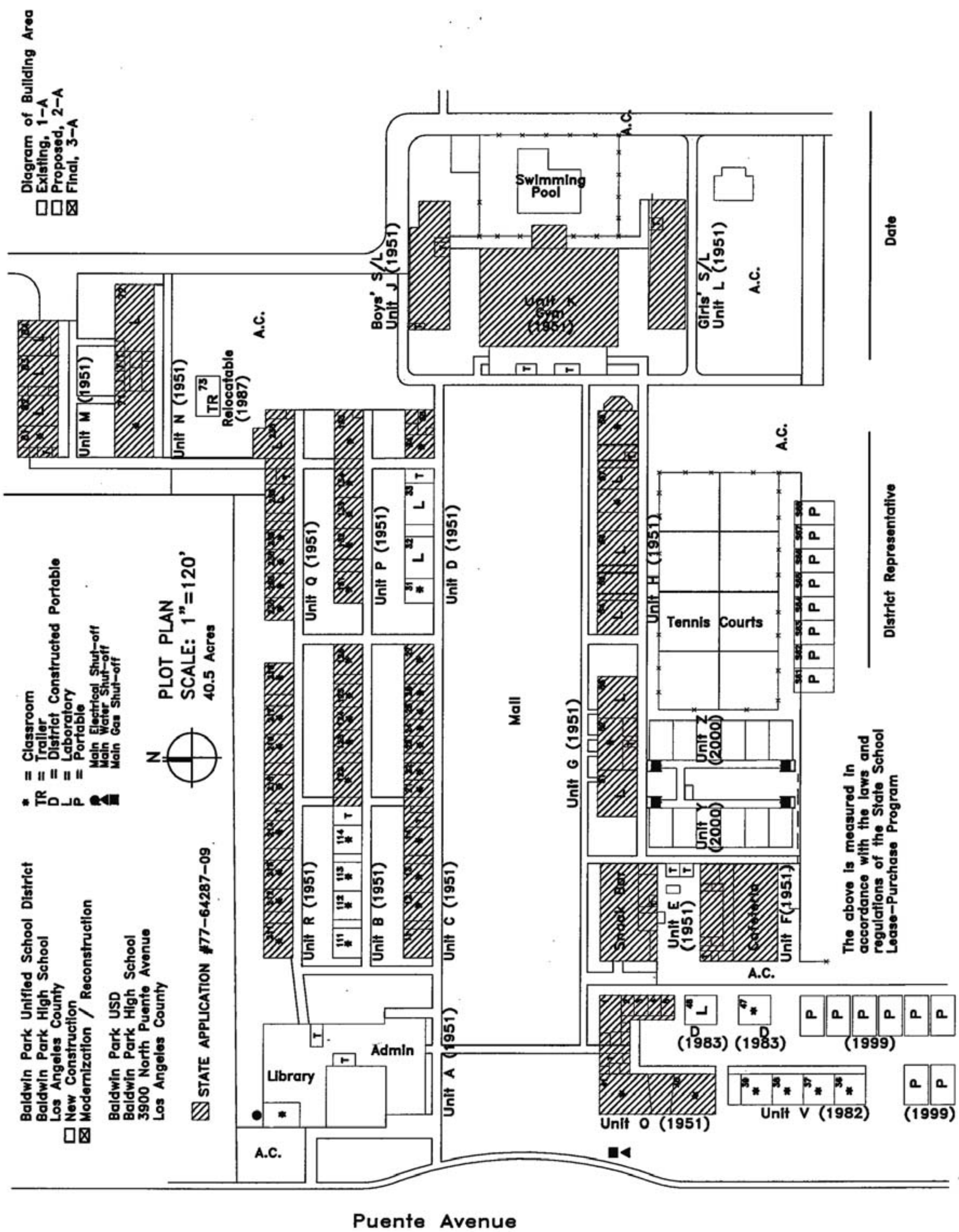
Baldwin Park Unified School District
Sites and Facilities

Site #1

Name of Building: **Baldwin Park High School**
Physical Address: 3900 North Puente Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 152,322
Purpose: High School
# of Classrooms: 92 # Seats (ADA) Capacity: 2,505
2004 Enrollment: 2,303 (approximately)
Type of Structure: Stucco on studs; glass metal curtain; wood siding on studs; brick on studs; stucco on masonry
Roof Composition: Built-up tar & gravel; metal; built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

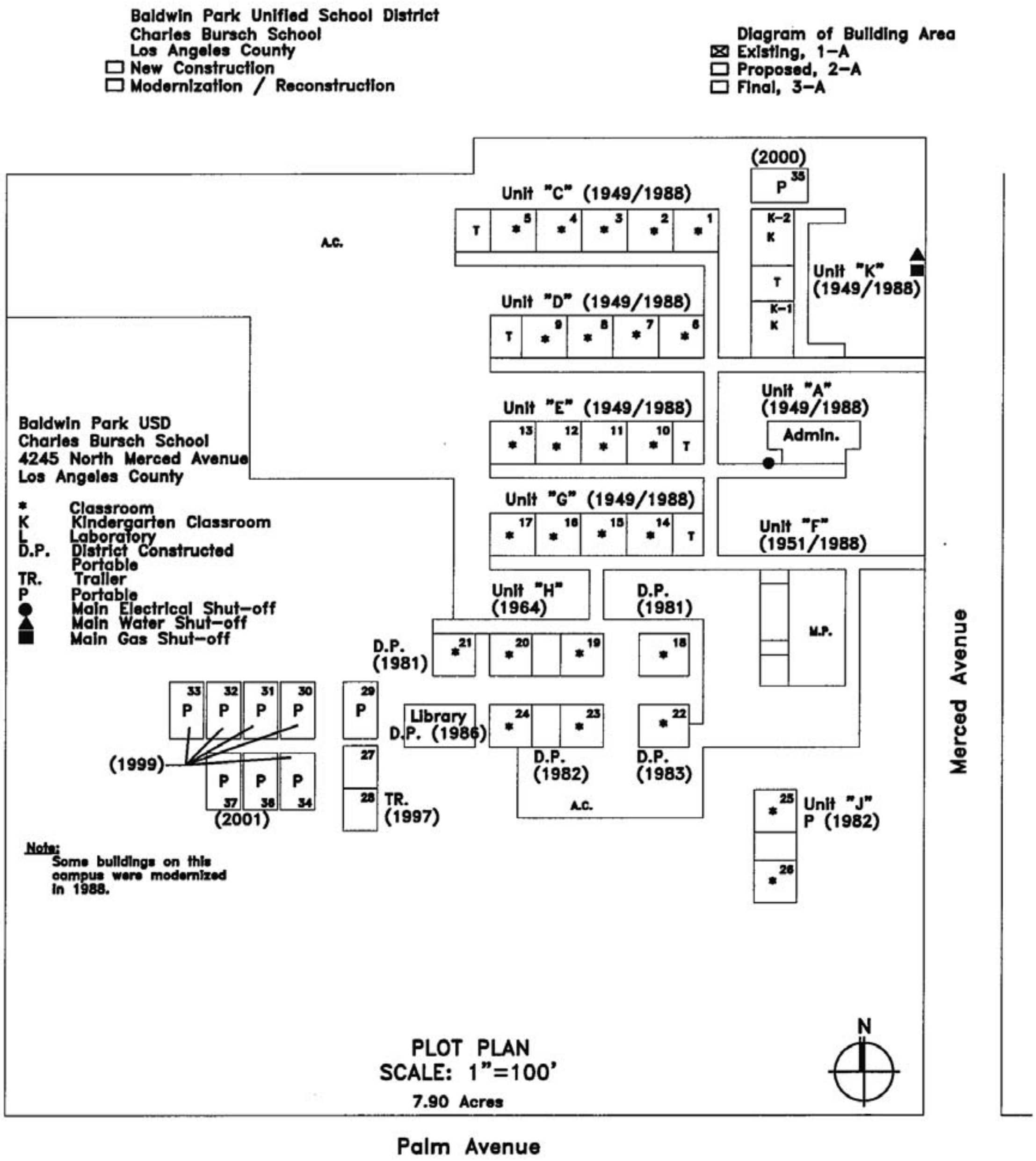

Baldwin Park Unified School District
Baldwin Park High School
Los Angeles County
New Construction
Modernization / Reconstruction
Baldwin Park USD
Baldwin Park High School
3900 North Puente Avenue
Los Angeles County
STATE APPLICATION #77-64287-09
* = Classroom
TR = Trailer
D = District Constructed Portable
L = Laboratory
P = Portable
Main Electrical Shut-off
Main Water Shut-off
Main Gas Shut-off
PLOT PLAN
SCALE: 1"=120'
40.5 Acres
Diagram of Building Area
Existing, 1-A
Proposed, 2-A
Final, 3-A
Date
District Representative
The above is measured in accordance with the laws and regulations of the State School Lease-Purchase Program
Swimming Pool
Unit K Gym (1951)
Boys' S/L Unit J (1951)
Girls' S/L Unit L (1951)
Unit M (1951)
Unit N (1951)
TR Relocatable (1987)
Unit Q (1951)
Unit P (1951)
Unit D (1951)
Unit R (1951)
Unit B (1951)
Unit C (1951)
Unit A (1951)
Mall
Unit G (1951)
Unit H (1951)
Tennis Courts
Unit Z (2000)
Unit Y (2000)
Snack Bar
Unit E (1951)
Cafeteria
Unit F (1951)
Library
Admin
Unit O (1951)
Unit V (1982)
(1983)
(1999)
A.C.
Puente Avenue

Site #2

Name of Building: **Charles Bursch Elementary School**
Physical Address: 4245 North Merced Avenue, Baldwin Park, CA 91706
Date Built: 1954 Square Footage: 46,065
Purpose: Elementary School
# of Classrooms: 38 # Seats (ADA) Capacity: 949
2004 Enrollment: 775
Type of Structure: Stucco on studs; brick on studs; wood siding on studs
Roof Composition: Built-up smooth; built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

	Details of Renovation	Date	Cost
#1			$
#2			$
#3			$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:



The above is measured in accordance with the laws and regulations of the State School Building Lease-Purchase Program.

District Representative

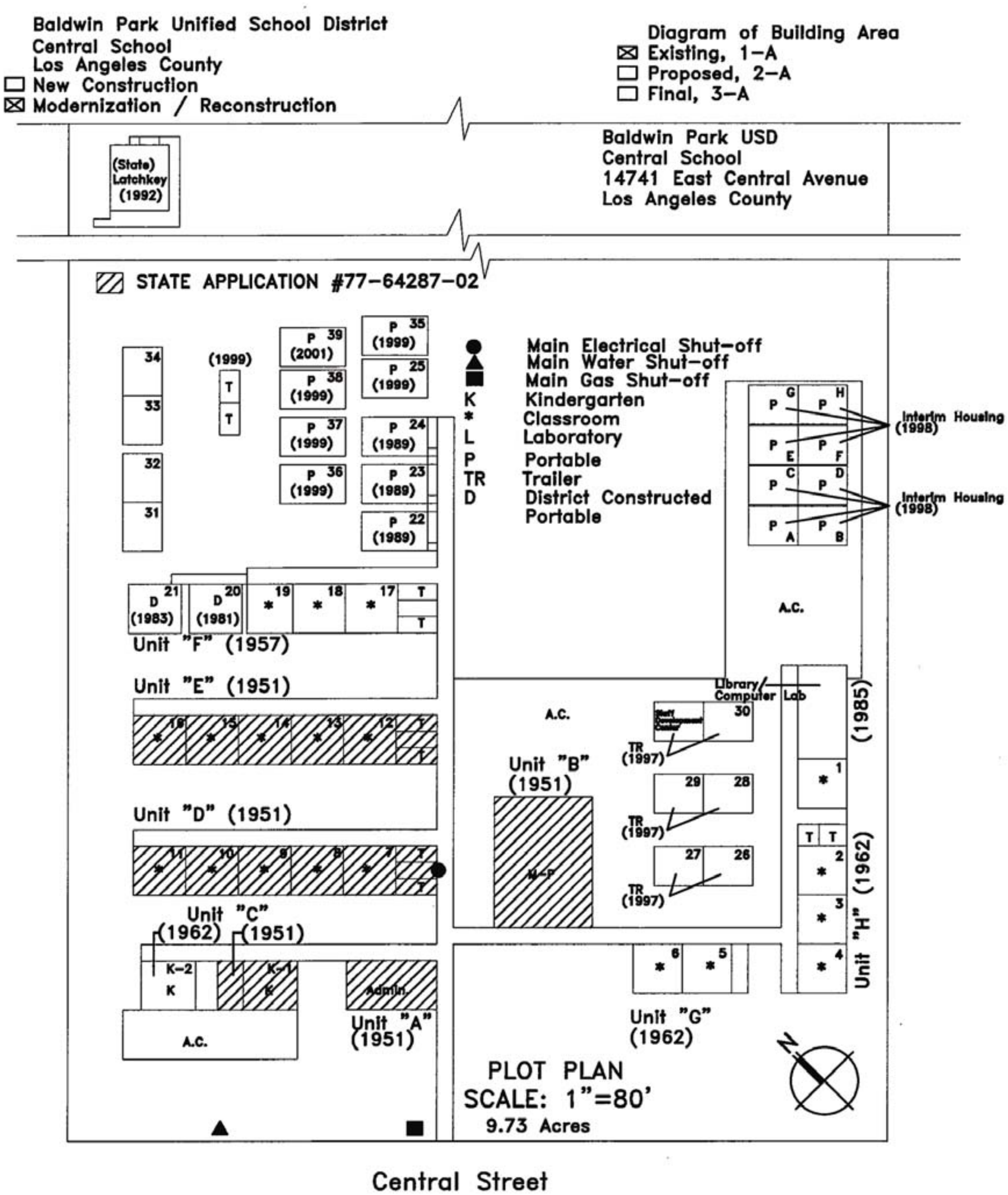
Date

Site #3

Name of Building: **Central Elementary School**
Physical Address: 14741 Central Avenue, Baldwin Park, CA 91706
Date Built: 1952 Square Footage: 55,222
Purpose: Elementary School
# of Classrooms: 42 # Seats (ADA) Capacity: 1,075
2004 Enrollment: 915
Type of Structure: Stucco on studs; wood siding on studs; brick on studs
Roof Composition: Built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:



The above is measured in accordance with the laws and regulations of the State School Building Lease-Purchase Program.

District Representative

Date

Site #4

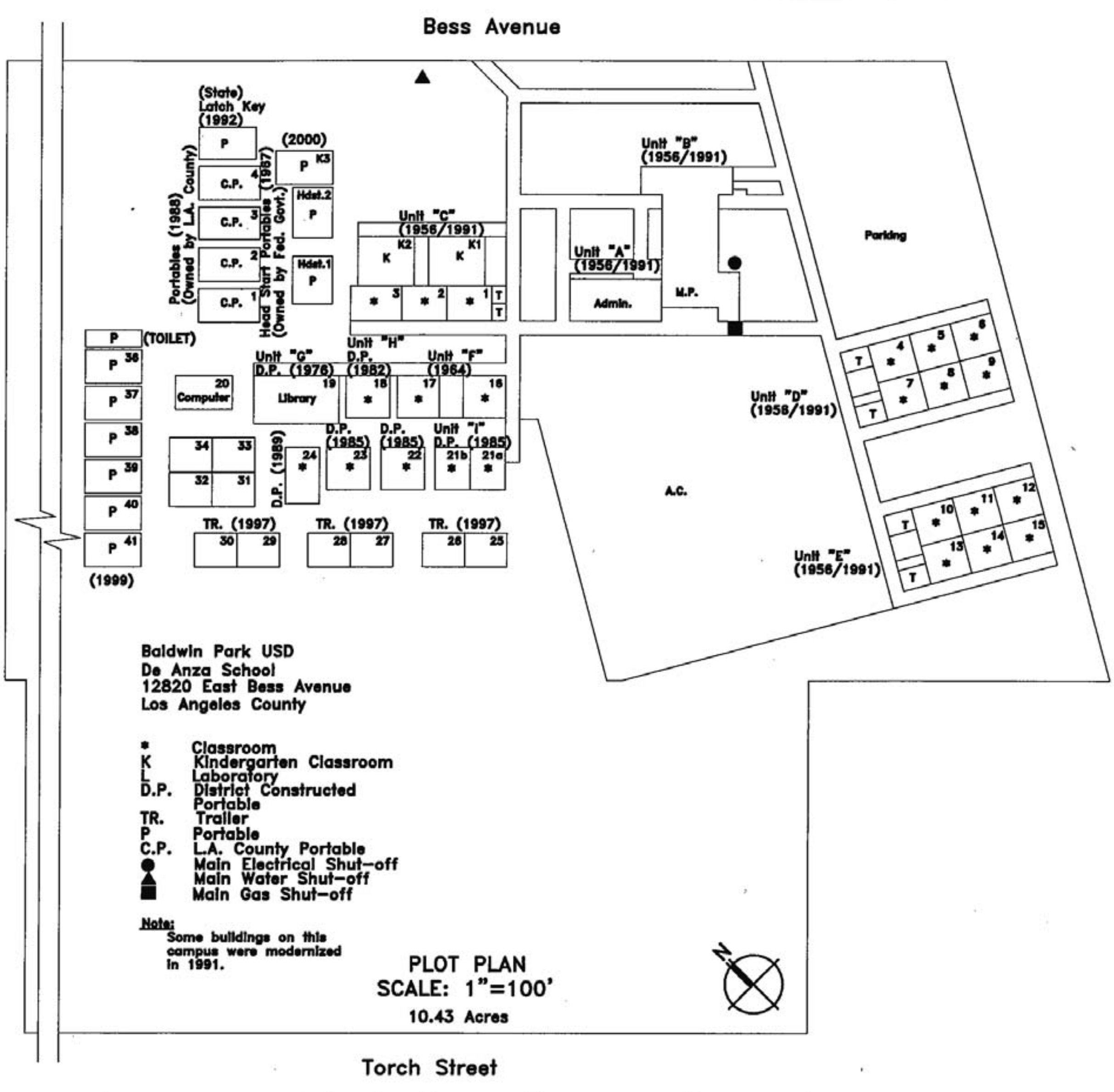
Name of Building: **De Anza Elementary School**
Physical Address: 12820 East Bass Avenue, Baldwin Park, CA 91706
Date Built: 1957 Square Footage: 56,887
Purpose: Elementary School
# of Classrooms: 41 # Seats (ADA) Capacity: 1,022
2004 Enrollment: 917
Type of Structure: Stucco on studs; wood siding on studs; metal siding on girts
Roof Composition: Built-up smooth; built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
De Anza School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #5

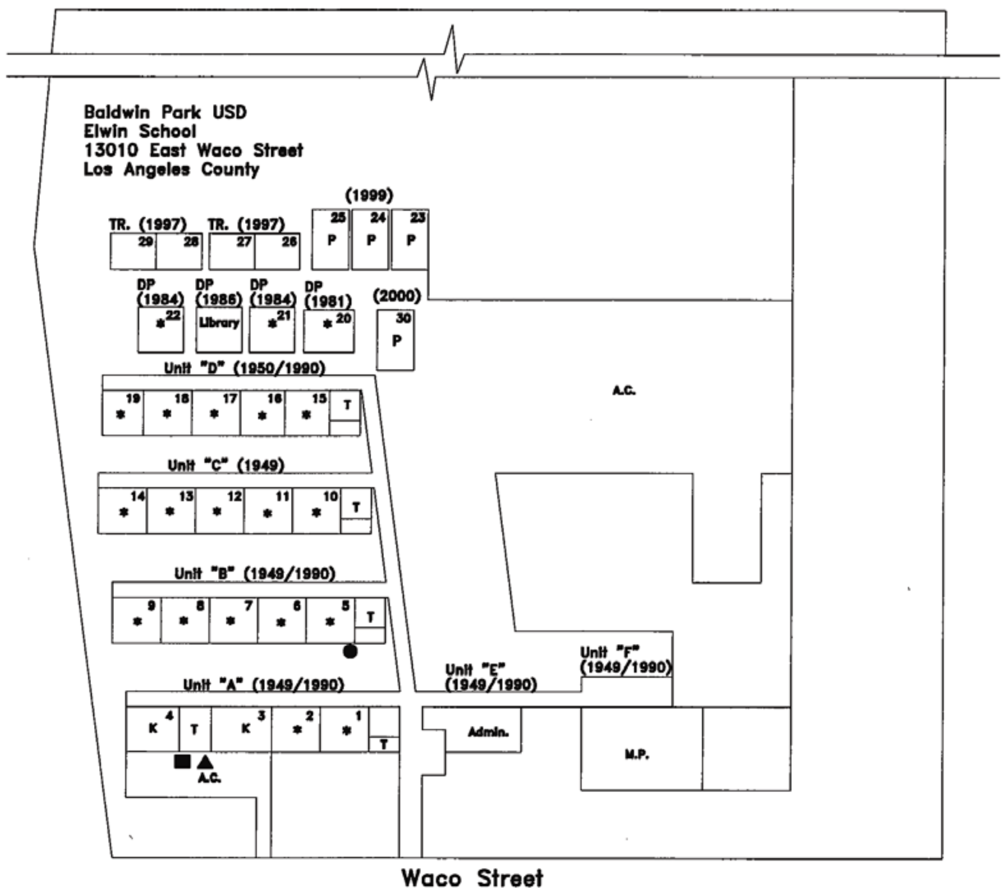
Name of Building: **Elwin Elementary School**
Physical Address: 13010 East Weco Street, Baldwin Park, CA 91706
Date Built: 1949 Square Footage: 25,311
Purpose: Elementary School
# of Classrooms: 29 # Seats (ADA) Capacity: 730
2004 Enrollment: 618
Type of Structure: Stucco on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; built-up smooth; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

	Details of Renovation	Date	Cost
#1	***Yes – Need Details***		$
#2			$
#3			$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Elwin School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



*	Classroom
K	Kindergarten Classroom
L	Laboratory
D.P.	District Constructed Portable
TR.	Trailer
●	Main Electrical Shut–off
▲	Main Water Shut–off
■	Main Gas Shut–off

Note:
Some buildings on this campus were modernized in 1990.

PLOT PLAN
SCALE: 1"=100'
11.27 Acres

N

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

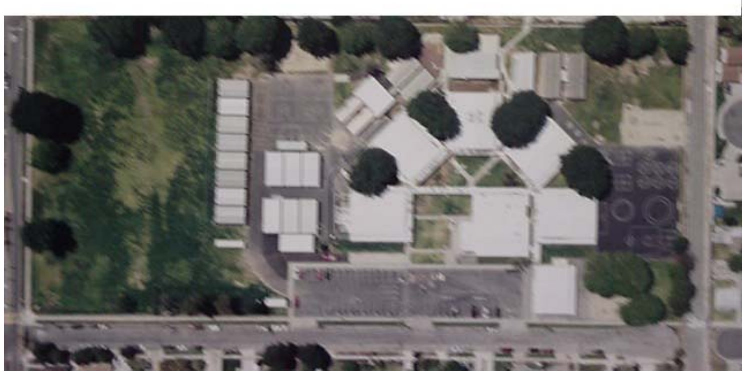
Date

Site #6

Name of Building: **Foster Elementary School**
Physical Address: 13900 Foster Avenue, Baldwin Park, CA 91706
Date Built: 1963 Square Footage: 46,236
Purpose: Elementary School
# of Classrooms: 38 # Seats (ADA) Capacity: 956
2004 Enrollment: 859
Type of Structure: Stucco on studs; brick on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

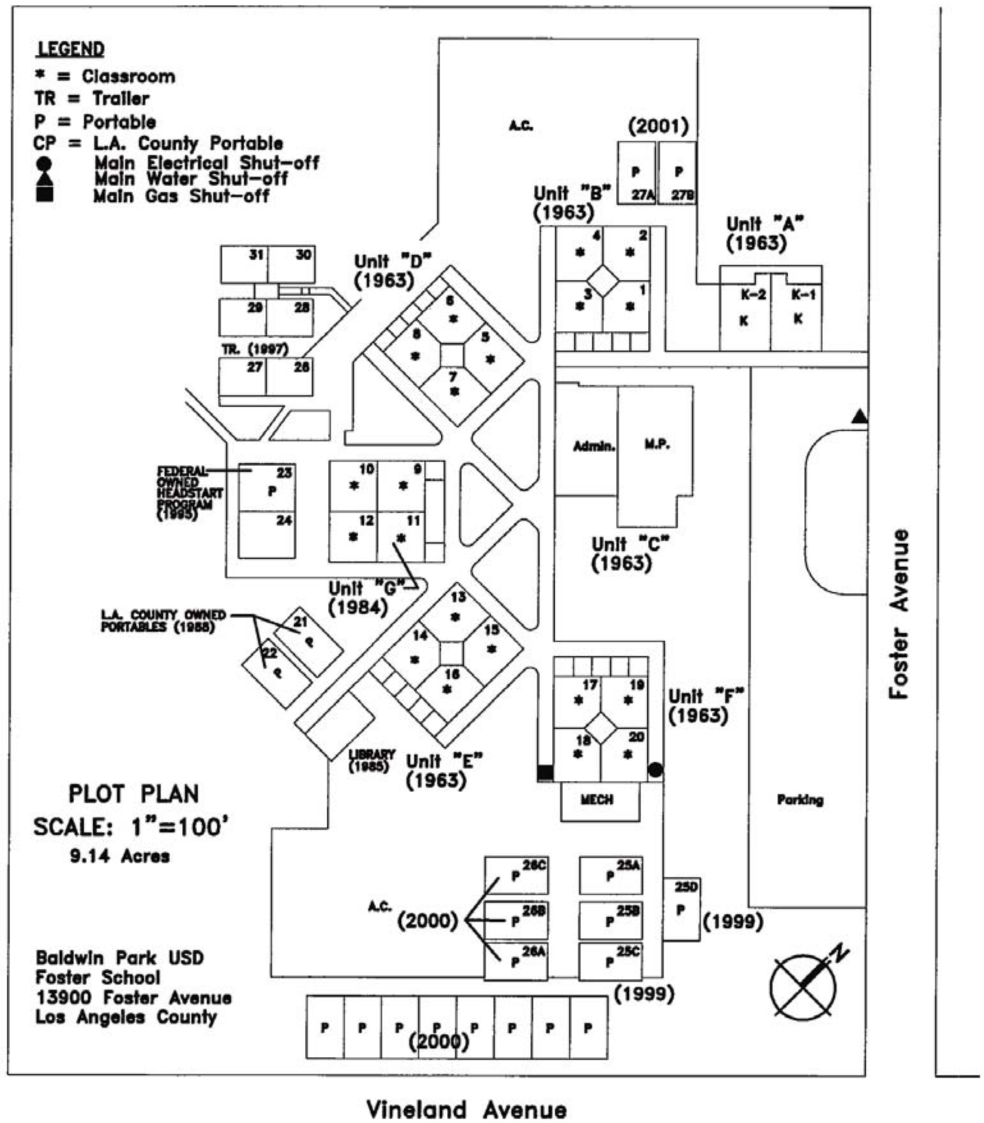
Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:



Baldwin Park Unified School District
Foster School
Los Angeles County
☐ **New Construction**
☒ **Modernization / Reconstruction**

Diagram of Building Area
☒ **Existing, 1–A**
☐ **Proposed, 2–A**
☐ **Final, 3–A**



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative **Date**

Note: Original Application Submitted on September6, 1996.

Site #7

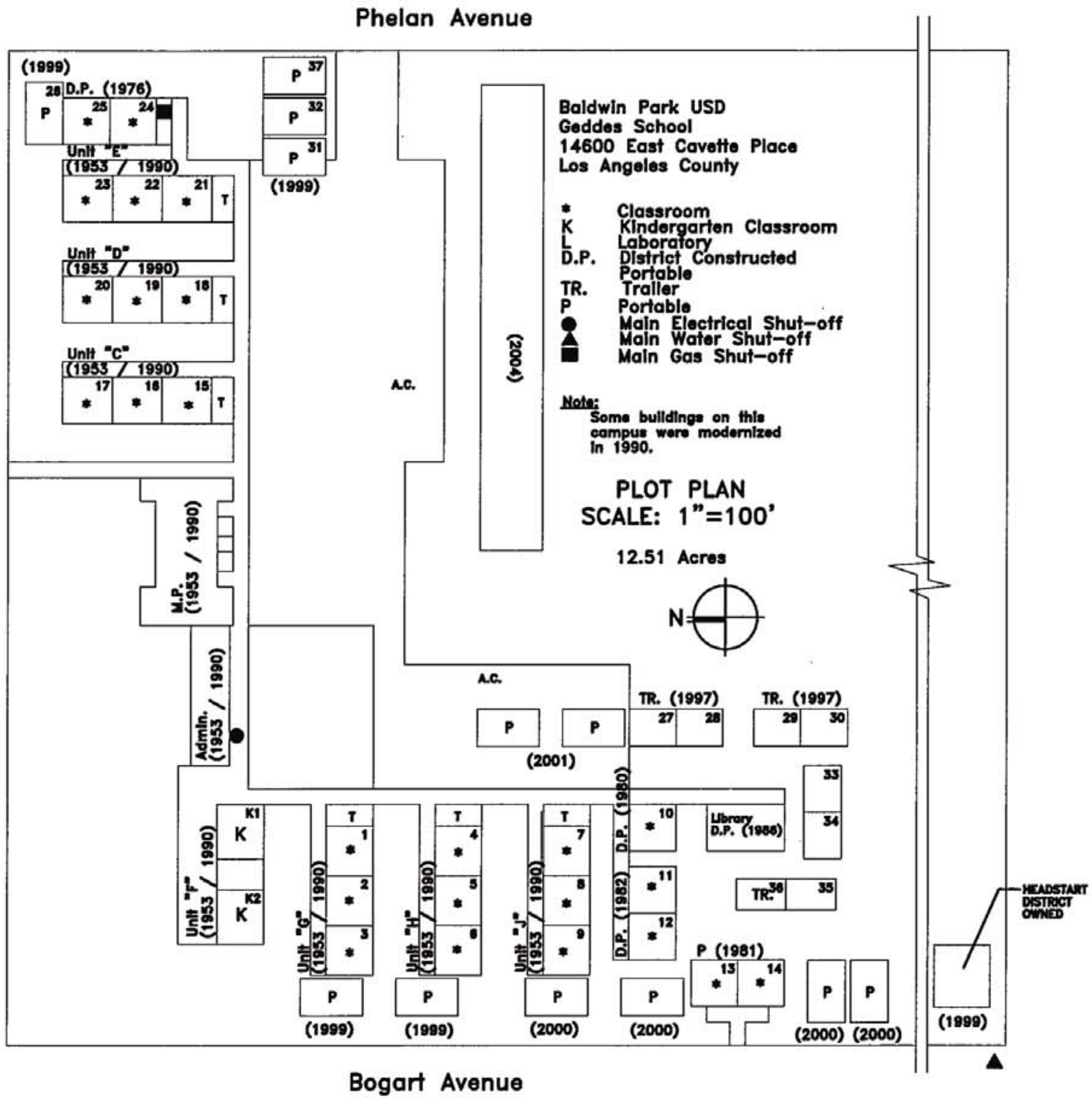
Name of Building: **Ernest R. Geddes Elementary School**
Physical Address: 14600 Cavette Place, Baldwin Park, CA 91706
Date Built: 1953 Square Footage: 50,975
Purpose: Elementary School
# of Classrooms: 42 # Seats (ADA) Capacity: 1,063
2004 Enrollment: 921
Type of Structure: Stucco on studs; metal siding/studs; wood siding on studs; concrete block; metal siding on girts
Roof Composition: Built-up smooth; built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Geddes School
Los Angeles County
☐ **New Construction**
☐ **Modernization / Reconstruction**

Diagram of Building Area
☒ **Existing, 1–A**
☐ **Proposed, 2–A**
☐ **Final, 3–A**



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative **Date**

Site #8

Name of Building: **Heath Elementary School**
Physical Address: 14321 School Street, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 40,295
Purpose: Elementary School
# of Classrooms: 28 # Seats (ADA) Capacity: 710
2004 Enrollment: 634
Type of Structure: Stucco on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

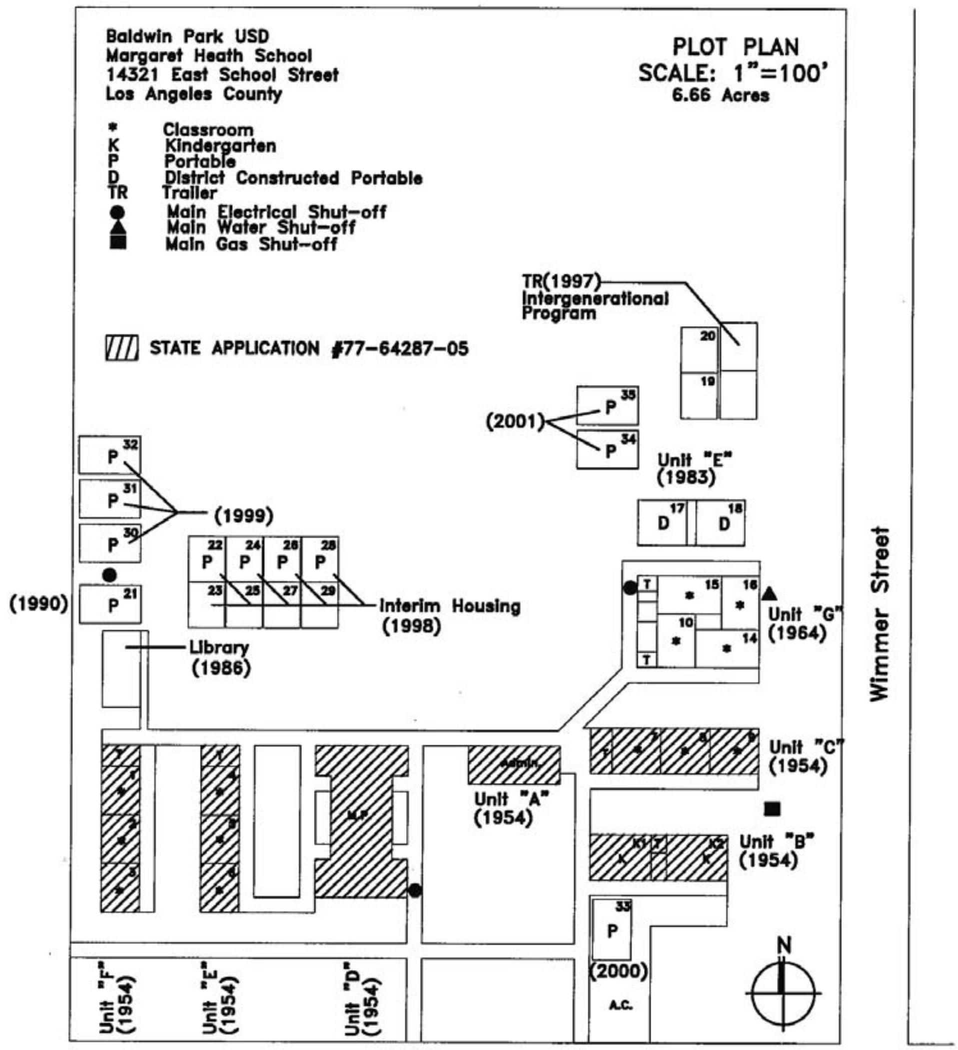
Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District

Margaret Heath School
Los Angeles County
☐ New Construction
☒ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



School Street

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #9

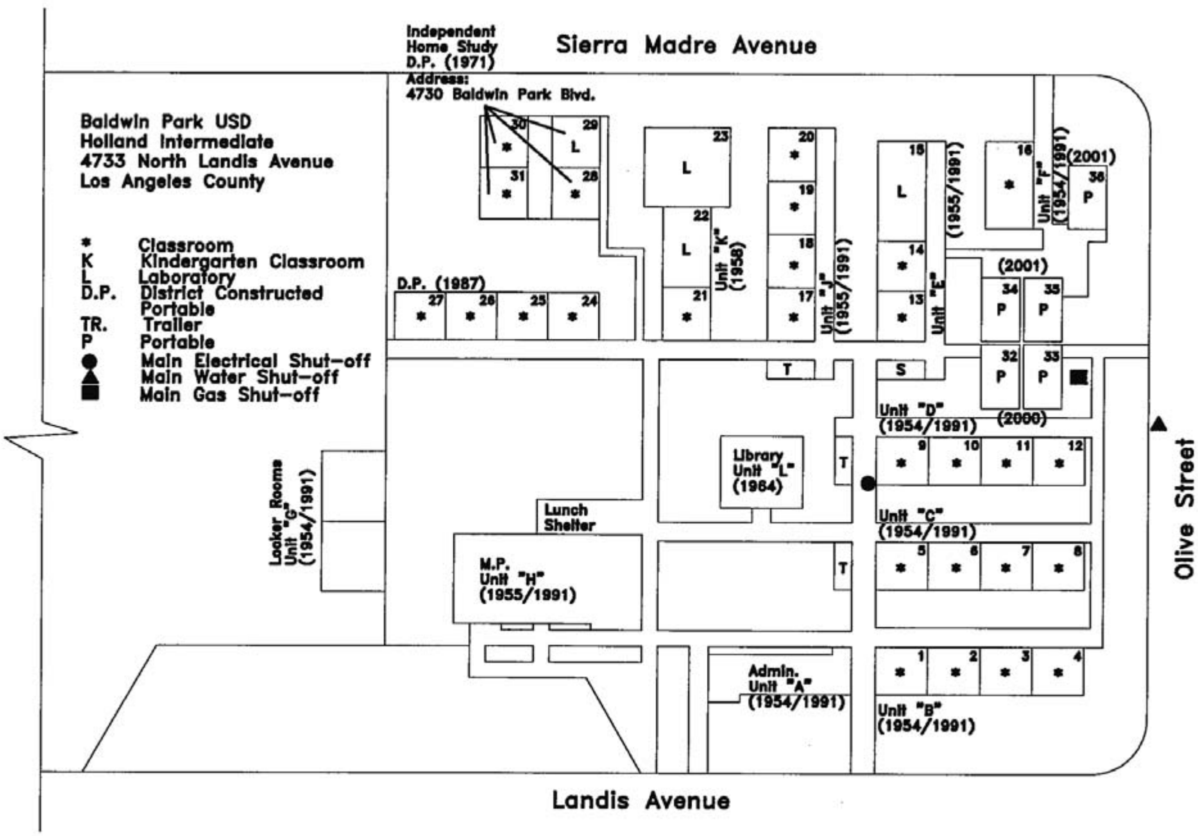
Name of Building: **Jerry D. Holland Middle School**
Physical Address: 4733 N. Landis Avenue, Baldwin Park, CA 91706
Date Built: 1975 Square Footage: 50,882
Purpose: Middle School
\# of Classrooms: 30 # Seats (ADA) Capacity: 845
2004 Enrollment: 731 (approximately)
Type of Structure: Stucco on studs; metal siding on girts
Roof Composition: Built-up smooth; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Holland Intermediate
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



PLOT PLAN
SCALE: 1"=100'
10.68 Acres

N

Note:
Some buildings on this campus were modernized in 1991.

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #10

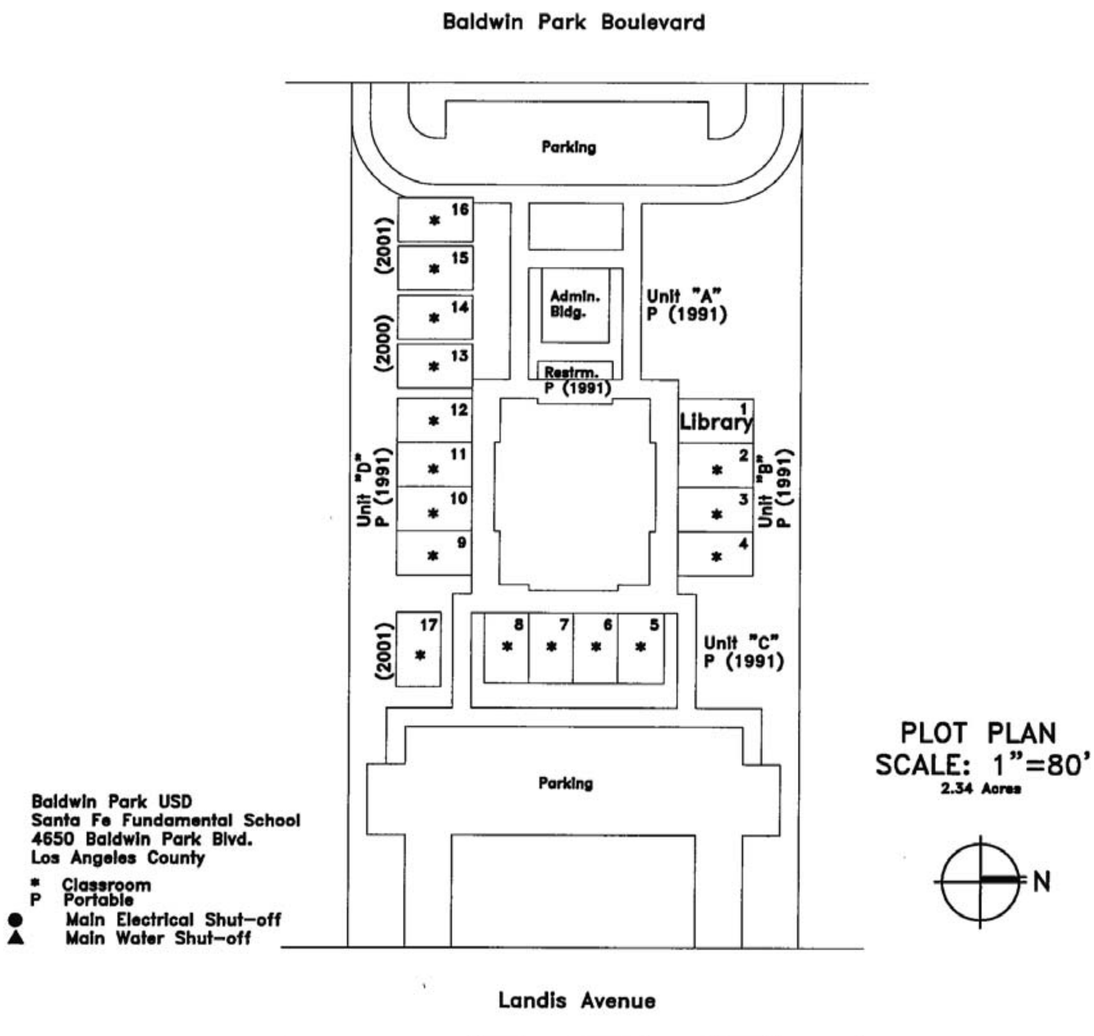
Name of Building: **Santa Fe Elementary School**
Physical Address: 4650 Baldwin Park Boulevard, Baldwin Park, CA 91706
Date Built: 1998 Square Footage: 13,440
Purpose: Elementary School
# of Classrooms: ______ # Seats (ADA) Capacity: ______
2004 Enrollment: 1,516
Type of Structure: Wood siding on studs;
Roof Composition: Metal; built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments: ______

Baldwin Park Unified School District
Santa Fe Fundamental School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #11

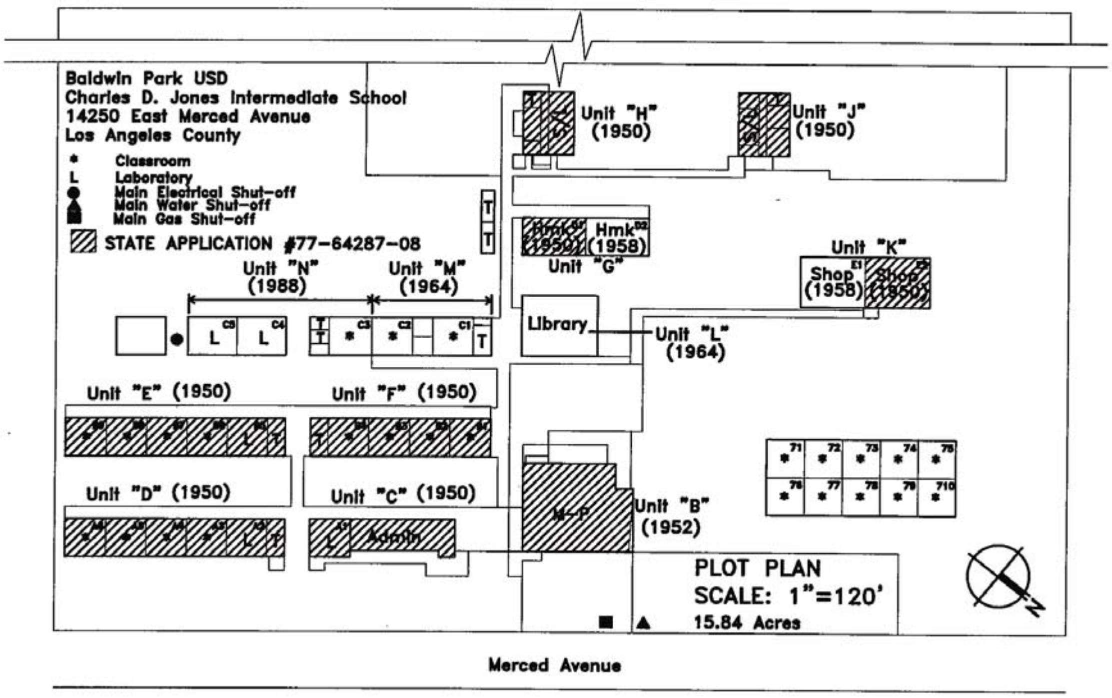
Name of Building: **Charles D. Jones Junior High**
Physical Address: 14250 East Merced Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 51,766
Purpose: Junior High School
# of Classrooms: 29 # Seats (ADA) Capacity: 817
2004 Enrollment: 743 (approximately)
Type of Structure: Stucco on studs; brick on studs; wood siding on studs
Roof Composition: Built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Charles D. Jones Intermediate School
Los Angeles County
☐ New Construction
☒ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



The above is measured in accordance with the laws and regulations of the State School Building Lease-Purchase Program.

District Representative

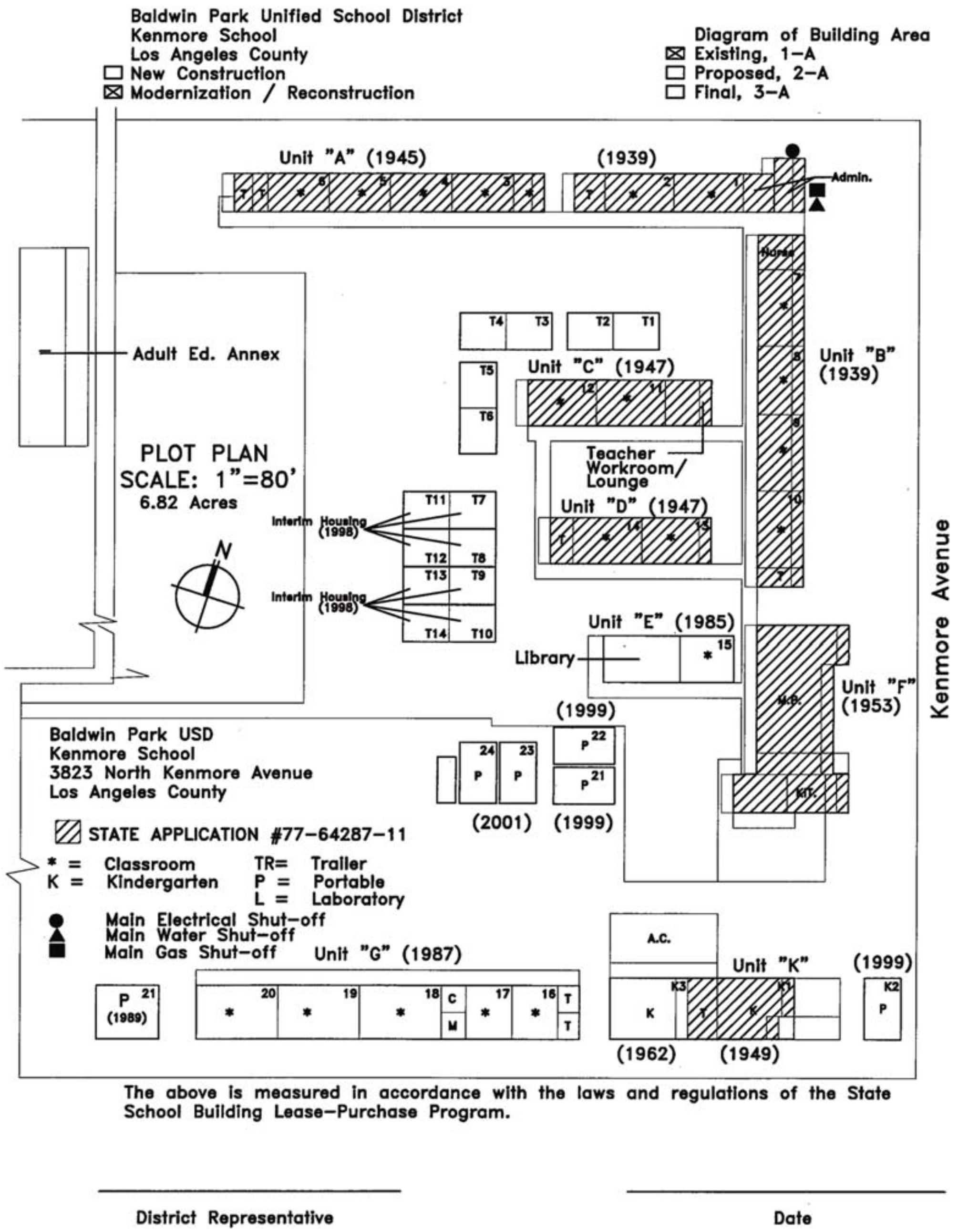
Date

Site #12

Name of Building: **Kenmore Elementary School**
Physical Address: 3823 Kenmore Avenue, Baldwin Park, CA 91706
Date Built: 1939 Square Footage: 46,620
Purpose: Elementary School
\# of Classrooms: 33 # Seats (ADA) Capacity: 783
2004 Enrollment: 758
Type of Structure: Stucco on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; metal; built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:


Baldwin Park Unified School District
Kenmore School
Los Angeles County
New Construction
Modernization / Reconstruction
Diagram of Building Area
Existing, 1–A
Proposed, 2–A
Final, 3–A
Unit "A" (1945)
(1939)
Admin.
Unit "B" (1939)
Unit "C" (1947)
Teacher Workroom/ Lounge
Unit "D" (1947)
Adult Ed. Annex
PLOT PLAN
SCALE: 1"=80'
6.82 Acres
N
Interim Housing (1998)
Interim Housing (1998)
Unit "E" (1985)
Library
Unit "F" (1953)
Kenmore Avenue
M.P.
KIT.
(1999)
(2001)
(1999)
Baldwin Park USD
Kenmore School
3823 North Kenmore Avenue
Los Angeles County
STATE APPLICATION #77–64287–11
* = Classroom
K = Kindergarten
TR= Trailer
P = Portable
L = Laboratory
Main Electrical Shut–off
Main Water Shut–off
Main Gas Shut–off
Unit "G" (1987)
A.C.
Unit "K"
(1999)
(1989)
(1962)
(1949)
The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.
District Representative
Date

Site #13

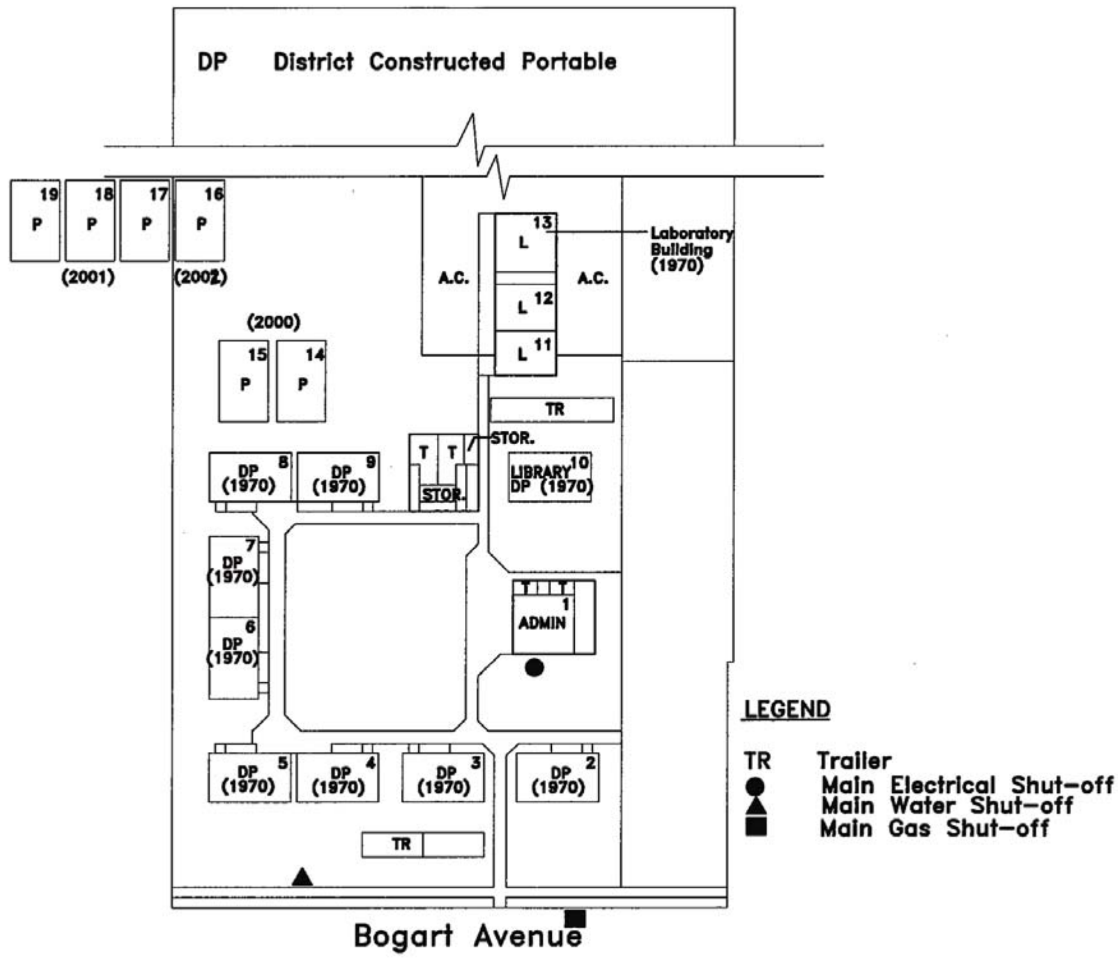
Name of Building: **North Park High School**
Physical Address: 4600 Bogart Avenue, Baldwin Park, CA 91706
Date Built: 1965 Square Footage: 14,774
Purpose: High School
# of Classrooms: # Seats (ADA) Capacity:
2004 Enrollment: 109 (approximately)
Type of Structure: Stucco on studs; wood siding on studs; concrete block; metal siding/studs
Roof Composition: Built-up tar & grave; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
North Park Continuation High School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



Baldwin Park USD
North Park Continuation School
4600 Bogart Avenue
Los Angeles County

PLOT PLAN
SCALE: 1"=80'
4.12 Acres

N

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

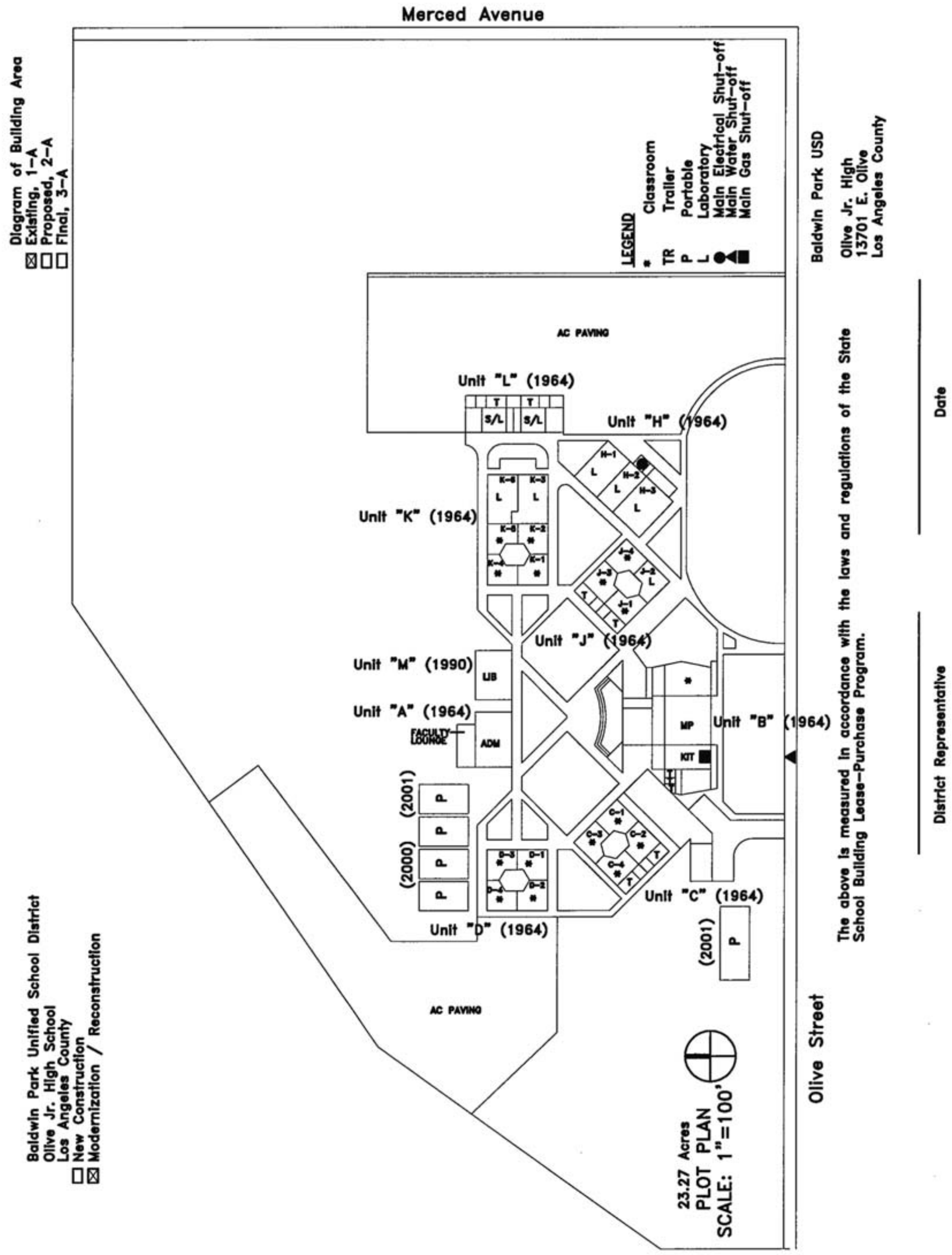
Date

Site #14

Name of Building: **Olive Junior High School**
Physical Address: 13701 East Olive Street, Baldwin Park, CA 91706
Date Built: 1968 Square Footage: 45,751
Purpose: Junior High School
# of Classrooms: 27 # Seats (ADA) Capacity: 717
2004 Enrollment: 570 (approximately)
Type of Structure: Brick on studs
Roof Composition: Built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:


Merced Avenue
Diagram of Building Area
Existing, 1-A
Proposed, 2-A
Final, 3-A
LEGEND
* Classroom
TR Trailer
P Portable
L Laboratory
Main Electrical Shut-off
Main Water Shut-off
Main Gas Shut-off
Baldwin Park USD
Olive Jr. High
13701 E. Olive
Los Angeles County
AC PAVING
Unit "L" (1964)
Unit "H" (1964)
Unit "K" (1964)
Unit "J" (1964)
Unit "M" (1990)
Unit "A" (1964)
FACULTY LOUNGE
ADM
MP
KIT
Unit "B" (1964)
Unit "C" (1964)
Unit "D" (1964)
(2001)
(2000)
The above is measured in accordance with the laws and regulations of the State School Building Lease-Purchase Program.
Date
District Representative
Baldwin Park Unified School District
Olive Jr. High School
Los Angeles County
New Construction
Modernization / Reconstruction
23.27 Acres
PLOT PLAN
SCALE: 1"=100'
Olive Street

Site #15

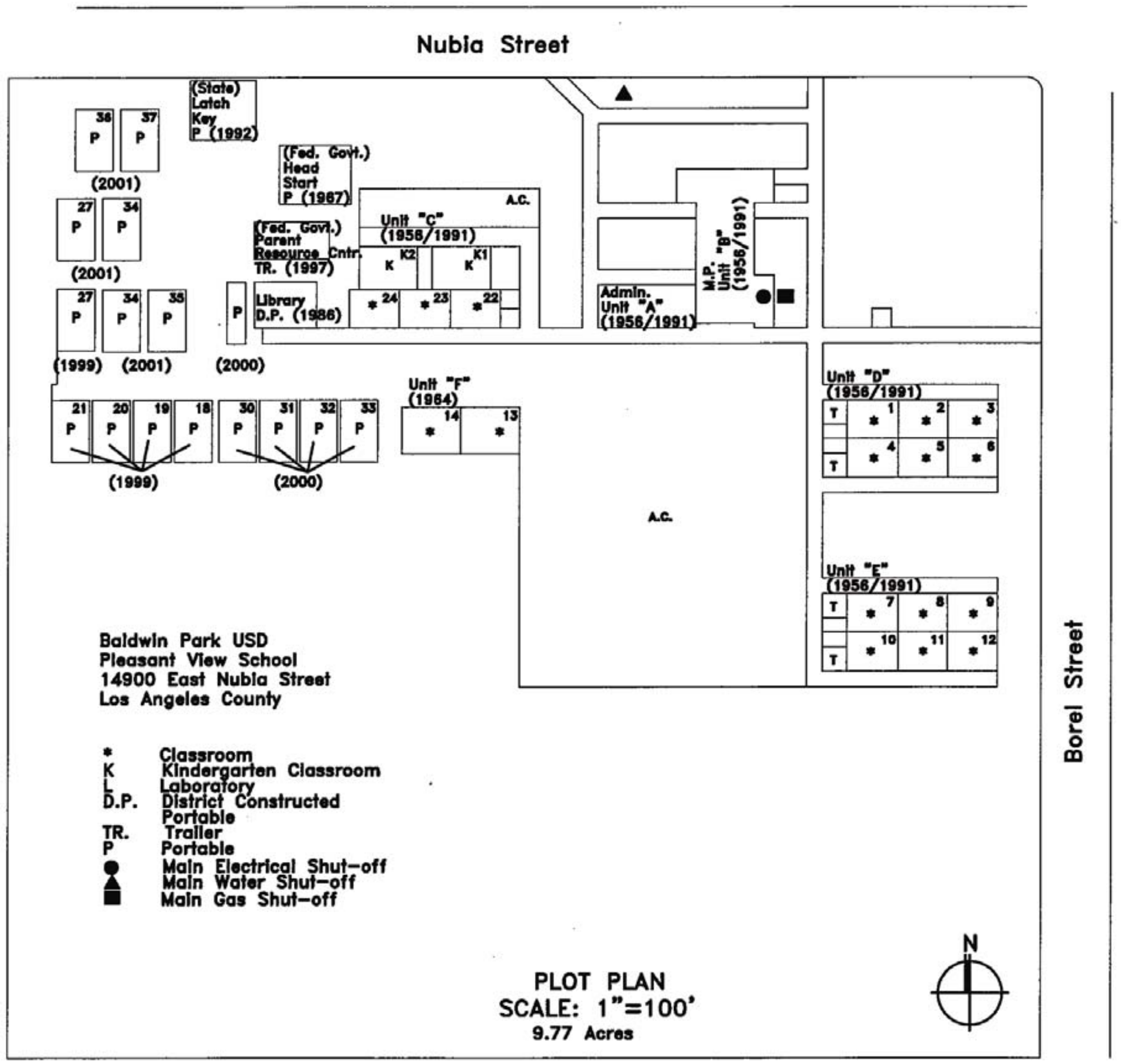
Name of Building: **Pleasant View Elementary School**
Physical Address: 14900 E. Nubia Street, Baldwin Park, CA 91706
Date Built: 1957 Square Footage: 44,033
Purpose: Elementary School
# of Classrooms: 31 # Seats (ADA) Capacity: 750
2004 Enrollment: 613
Type of Structure: Stucco on studs; wood siding on studs;
Roof Composition: Built-up smooth;
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Pleasant View School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



Note:
Some buildings on this campus were modernized in 1991.

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

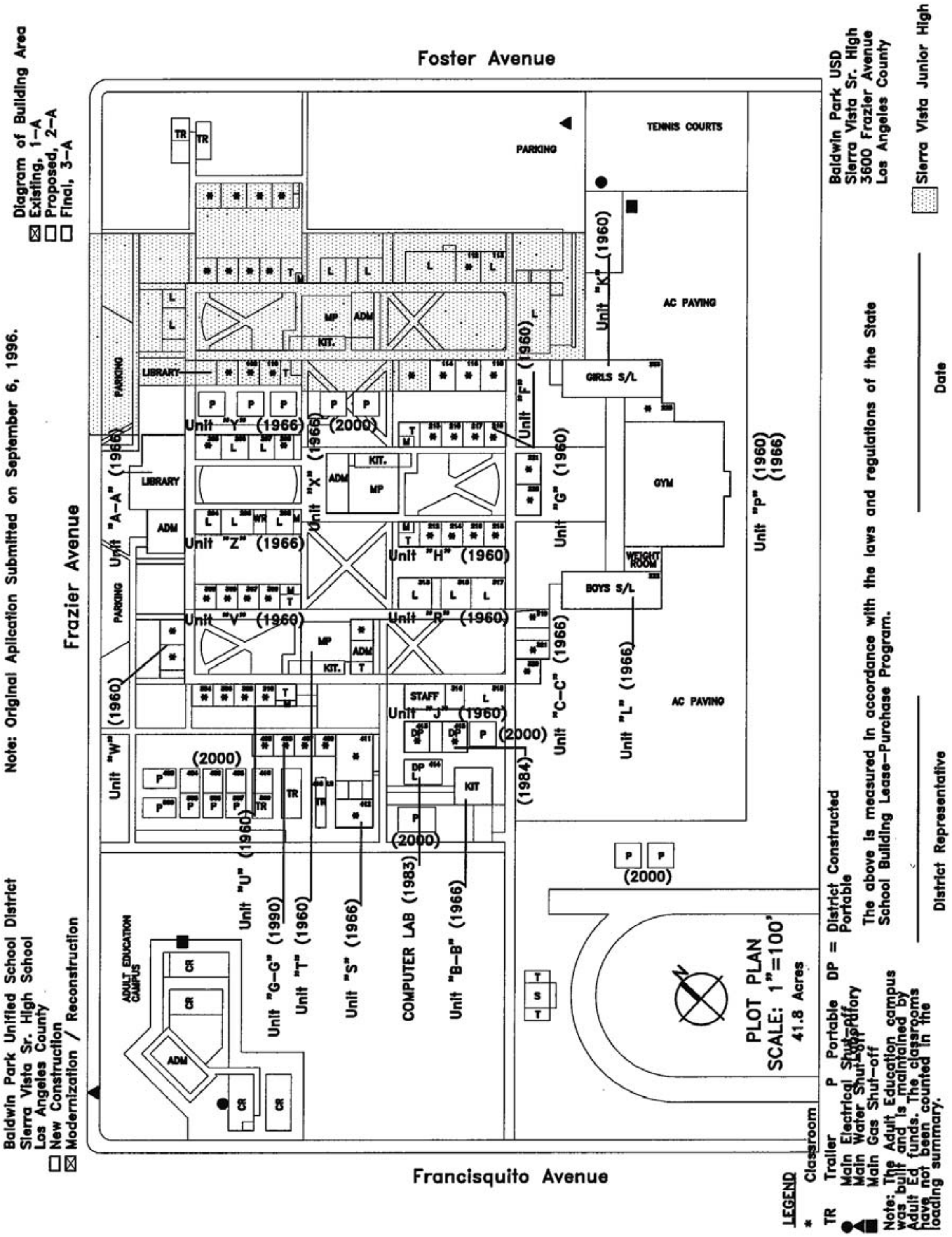
Date

Site #16

Name of Building: **Sierra Vista High School**
Physical Address: 3600 North Frazier Street, Baldwin Park, CA 91706
Date Built: 1968 Square Footage: 136,703
Purpose: High School
# of Classrooms: 74 # Seats (ADA) Capacity: 1,982
2004 Enrollment: 2,031 (approximately)
Type of Structure: Stucco on studs; wood siding on studs; stucco on masonry; reinforced concrete; concrete block
Roof Composition: Built-up smooth; metal; built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

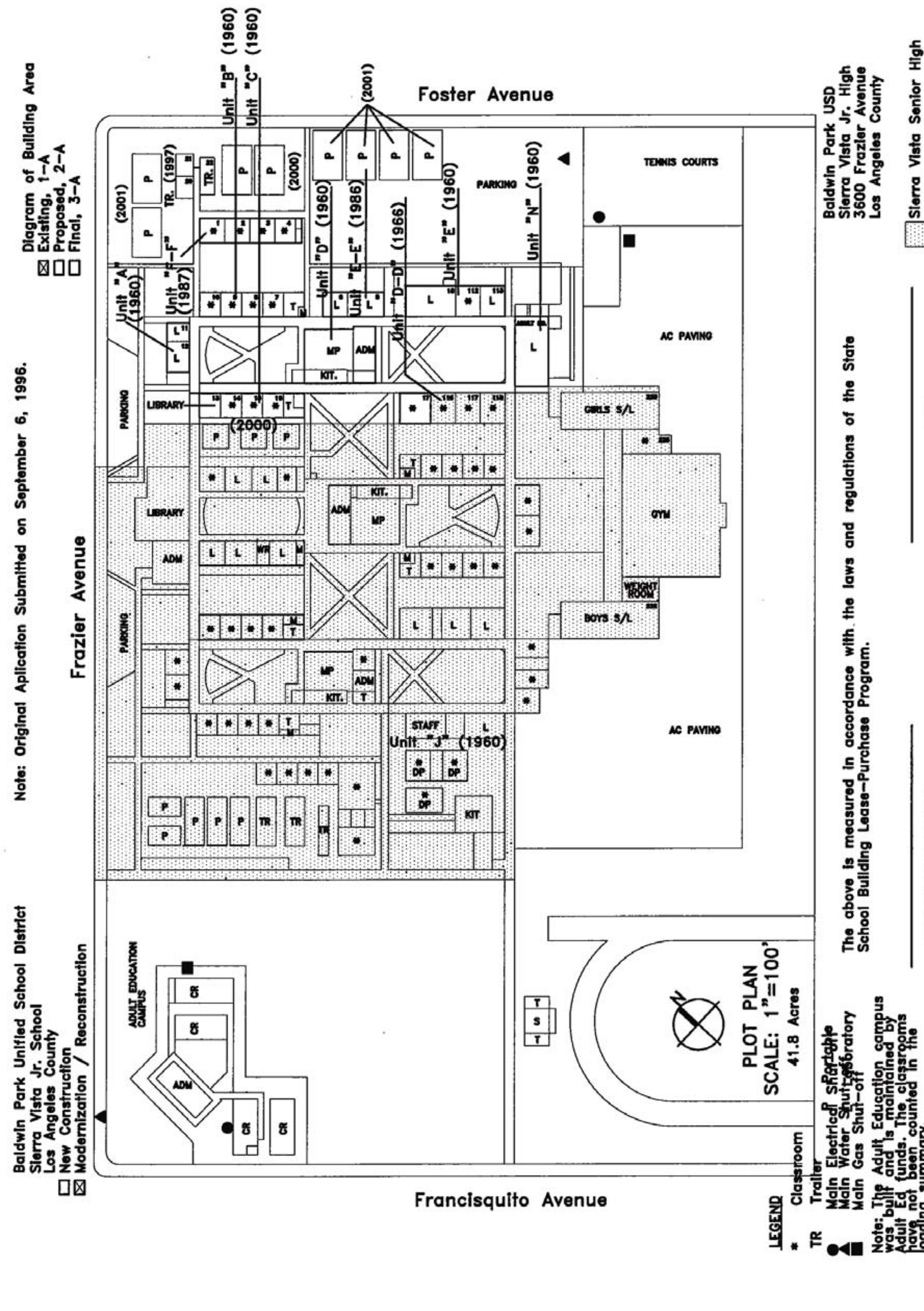

Note: Original Aplication Submitted on September 6, 1996.
Diagram of Building Area
Existing, 1–A
Proposed, 2–A
Final, 3–A
Baldwin Park Unified School District
Sierra Vista Sr. High School
Los Angeles County
New Construction
Modernization / Reconstruction
Foster Avenue
Frazier Avenue
Francisquito Avenue
PARKING
TENNIS COURTS
AC PAVING
GIRLS S/L
BOYS S/L
GYM
WEIGHT ROOM
LIBRARY
ADM
MP
KIT.
STAFF
ADULT EDUCATION CAMPUS
Unit "Y" (1966)
Unit "X" (1966)
Unit "Z" (1966)
Unit "V" (1960)
Unit "A–A" (1966)
Unit "W" (1960)
Unit "H" (1960)
Unit "R" (1960)
Unit "J" (1960)
Unit "F" (1960)
Unit "G" (1960)
Unit "K" (1960)
Unit "C–C" (1966)
Unit "L" (1966)
Unit "P" (1960) (1966)
Unit "U" (1960)
Unit "G–G" (1990)
Unit "T" (1960)
Unit "S" (1966)
COMPUTER LAB (1983)
Unit "B–B" (1966)
(2000)
(1984)
PLOT PLAN
SCALE: 1"=100'
41.8 Acres
LEGEND
* Classroom
TR Trailer
P Portable
DP = District Constructed Portable
Main Electrical Shut–off
Main Water Shut–off
Main Gas Shut–off
Note: The Adult Education campus was built and is maintained by Adult Ed funds. The classrooms have not been counted in the loading summary.
The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.
District Representative
Date
Baldwin Park USD
Sierra Vista Sr. High
3600 Frazier Avenue
Los Angeles County
Sierra Vista Junior High

Site #17

Name of Building: **Sierra Vista Junior High School**
Physical Address: 13400 Foster Avenue, Baldwin Park, CA 91706
Date Built: 1968 Square Footage: 24,831
Purpose: Junior High School
# of Classrooms: 33 # Seats (ADA) Capacity: 910
2004 Enrollment: 792 (approximately)
Type of Structure: Stucco on studs; metal siding on girts; wood siding on studs
Roof Composition: Built-up smooth; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:


Baldwin Park Unified School District
Sierra Vista Jr. School
Los Angeles County
New Construction
Modernization / Reconstruction
Note: Original Aplication Submitted on September 6, 1996.
Diagram of Building Area
Existing, 1-A
Proposed, 2-A
Final, 3-A
Foster Avenue
Frazier Avenue
Francisquito Avenue
Unit "A" (1960)
Unit "B" (1960)
Unit "C" (1960)
Unit "D" (1960)
Unit "E-E" (1986)
Unit "D-D" (1966)
Unit "E" (1960)
Unit "N" (1960)
Unit "F-F" (1987)
Unit "J" (1960)
TENNIS COURTS
PARKING
AC PAVING
LIBRARY
ADM
MP
KIT.
GIRLS S/L
BOYS S/L
GYM
WEIGHT ROOM
STAFF
ADULT EDUCATION CAMPUS
PLOT PLAN
SCALE: 1"=100'
41.8 Acres
LEGEND
* Classroom
TR Trailer
P Portable
L Laboratory
Main Electrical Shut-off
Main Water Shut-off
Main Gas Shut-off
Note: The Adult Education campus was built and is maintained by Adult Ed funds. The classrooms have not been counted in the loading summary.
The above is measured in accordance with the laws and regulations of the State School Building Lease-Purchase Program.
District Representative
Date
Baldwin Park USD
Sierra Vista Jr. High
3600 Frazier Avenue
Los Angeles County
Sierra Vista Senior High

Site #18

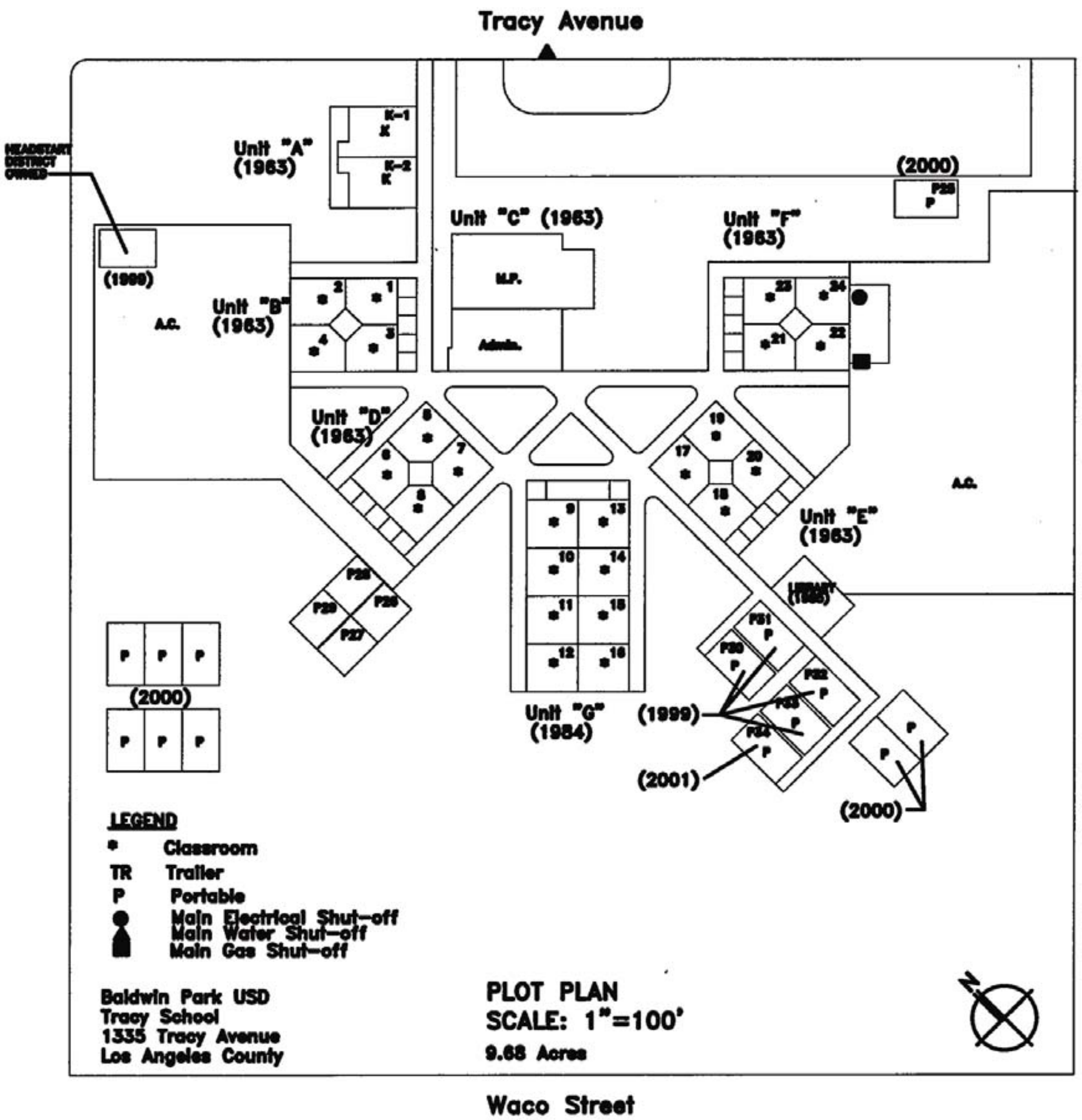
Name of Building: **Tracy Elementary School**
Physical Address: 13350 Tracy Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 49,645
Purpose: Elementary School
# of Classrooms: 36 # Seats (ADA) Capacity: 896
2004 Enrollment: 785
Type of Structure: Stucco on studs; brick on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

	Details of Renovation	Date	Cost
#1			$
#2			$
#3			$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Tracy School
Los Angeles County
☐ New Construction
☒ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #19

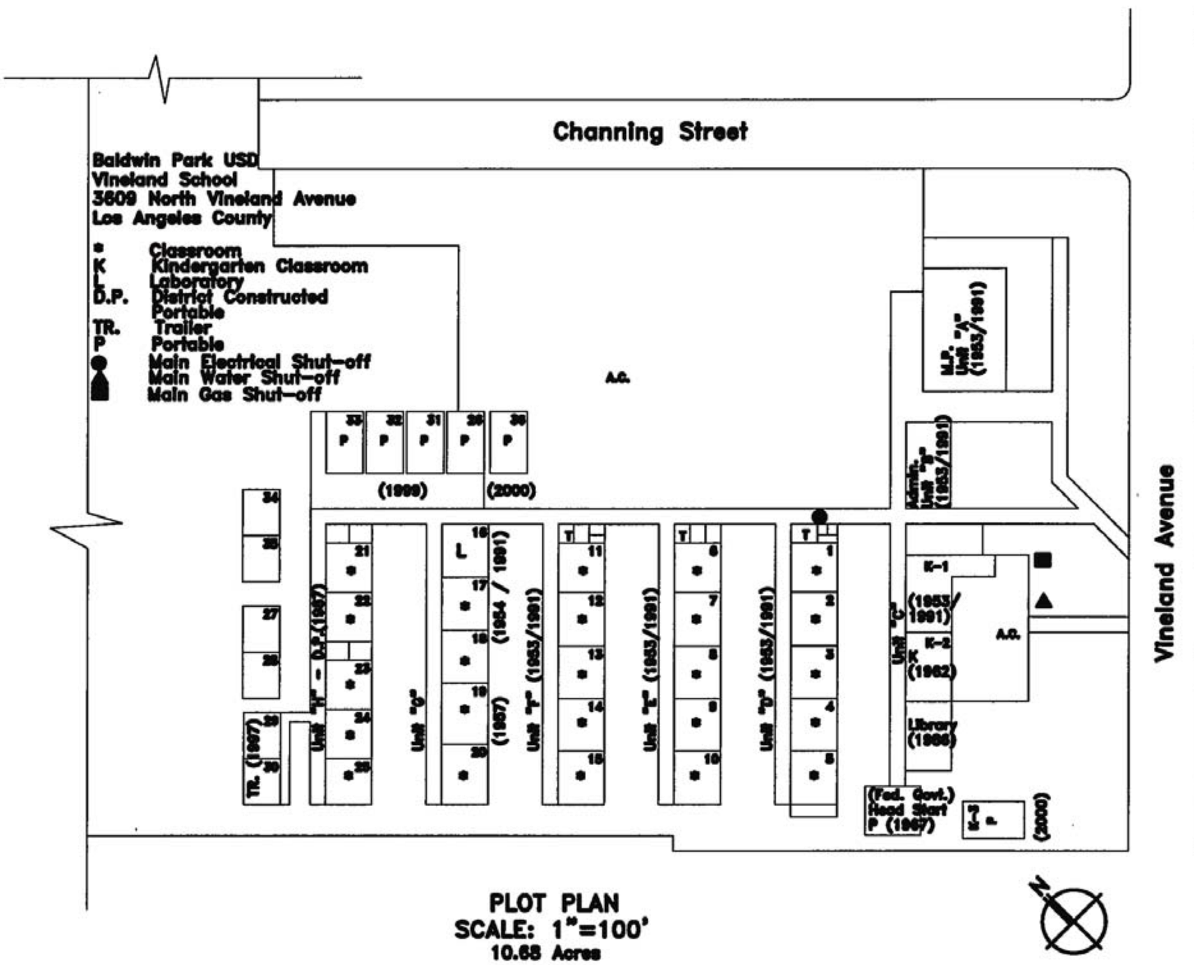
Name of Building: **Vineland Elementary School**
Physical Address: 3609 North Vineland Avenue, Baldwin Park, CA 91706
Date Built: 1955 Square Footage: 47,126
Purpose: Elementary School
# of Classrooms: 38 # Seats (ADA) Capacity: 896
2004 Enrollment: 817
Type of Structure: Stucco on Studs; brick on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; built-up smooth; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Vineland School
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A



Note:
Some buildings on this campus were modernized in 1991.

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

____________________ ____________________

District Representative Date

Site #20

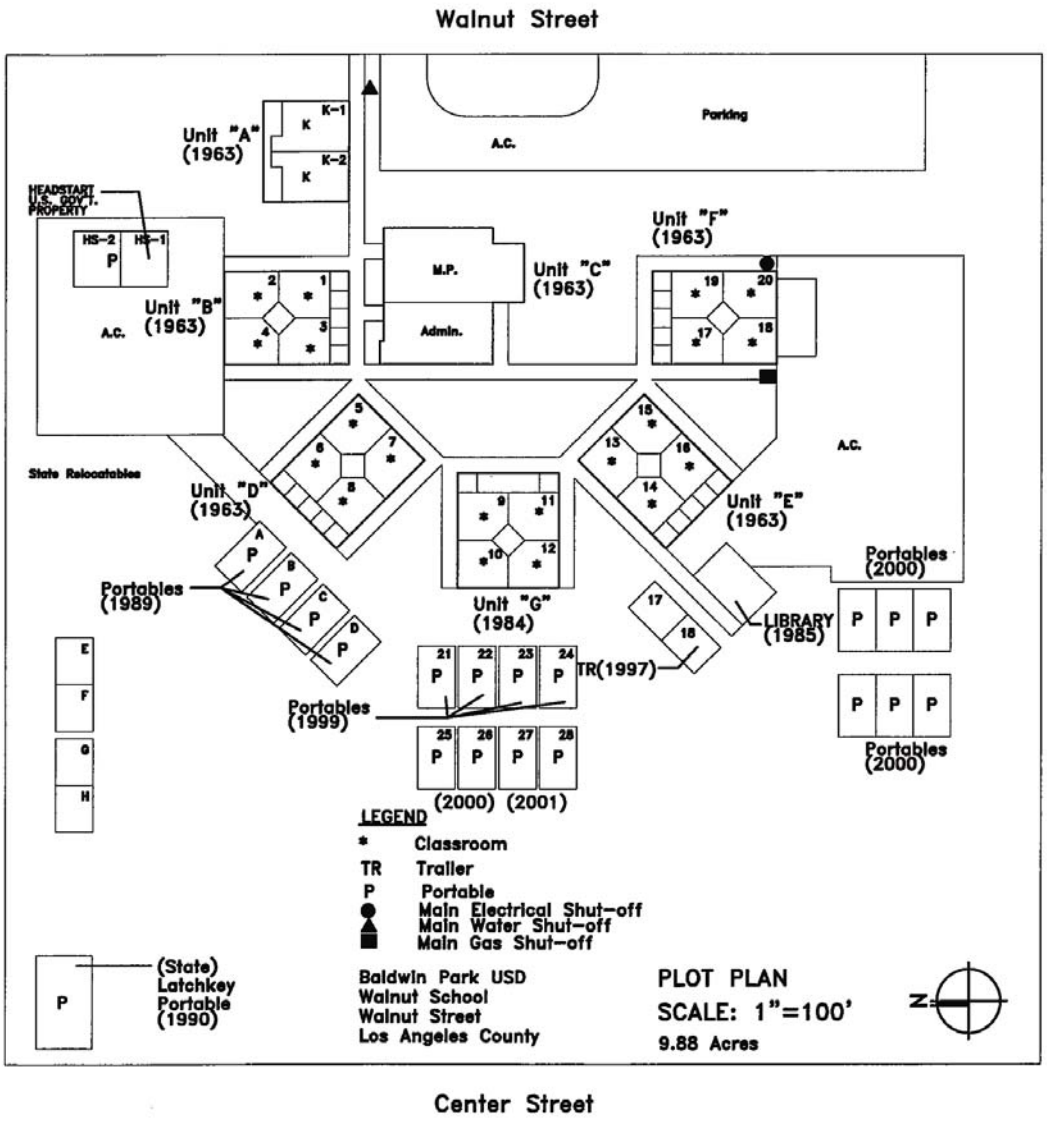
Name of Building: **Walnut Elementary School**
Physical Address: 4701 North Walnut Street, Baldwin Park, CA 91706
Date Built: 1963 Square Footage: 52,051
Purpose: Elementary School
# of Classrooms: 38 # Seats (ADA) Capacity: 900
2004 Enrollment: 785
Type of Structure: Stucco on studs; brick on studs; metal siding on girts; wood siding on studs
Roof Composition: Built-up tar & gravel; built-up smooth; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Walnut School
Los Angeles County
☐ **New Construction**
☒ **Modernization / Reconstruction**

Diagram of Building Area
☒ **Existing, 1–A**
☐ **Proposed, 2–A**
☐ **Final, 3–A**



The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

______________________ ______________________

District Representative **Date**

Site #21

Name of Building: **Childrens Center**
Physical Address: 13529 Francisquito Avenue, Baldwin Park, CA 91706
Date Built: 1970 Square Footage: 12,228
Purpose: Childrens center
# of Classrooms: # Seats (ADA) Capacity:
Type of Structure: Stucco on studs; brick on studs; wood siding on studs
Roof Composition: Built-up tar & gravel; metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

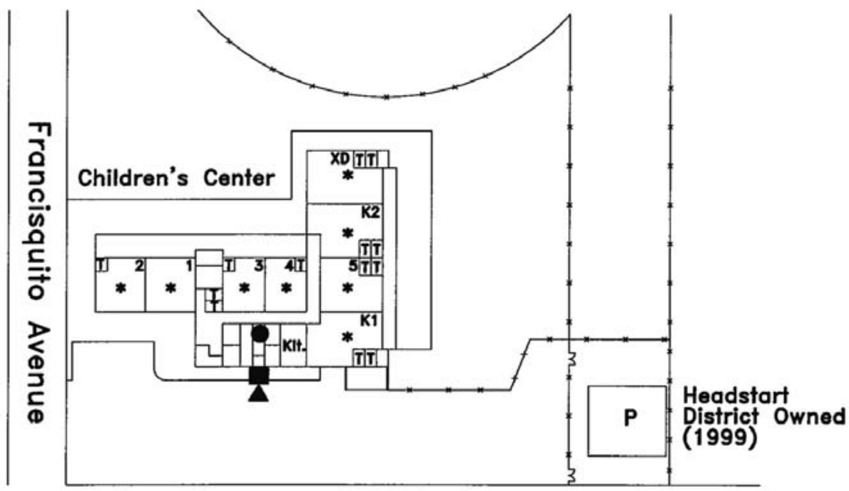
General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Baldwin Park Unified School District
Children's Center
Los Angeles County
☐ New Construction
☐ Modernization / Reconstruction

Diagram of Building Area
☒ Existing, 1–A
☐ Proposed, 2–A
☐ Final, 3–A

LEGEND

P Portable
● Main Electrical Shut–off
▲ Main Water Shut–off
■ Main Gas Shut–off



Baldwin Park USD
Children's Center
13529 Francisquito Avenue
Los Angeles County

PLOT PLAN
SCALE: 1"=80'

The above is measured in accordance with the laws and regulations of the State School Building Lease–Purchase Program.

District Representative

Date

Site #22

Name of Building: **District Office**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 10,721
Purpose: District Office
\# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs
Roof Composition: Built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #23

Name of Building: **Publication/Food Services**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 5,023
Purpose: Publication/Food Services
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #24

Name of Building: **Adult Career Training Center**
Physical Address: 4640 Maine Avenue, Baldwin Park, CA 91706
Date Built: 1980 Square Footage: 51,895
Purpose: Training Center
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs; brick on masonry; wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #25

Name of Building: **Adult Education Center**
Physical Address: 13307 Francisquito Avenue, Baldwin Park, CA 91706
Date Built: 1977 Square Footage: 16,950
Purpose: Education Center
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Metal siding/studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #26

Name of Building: **Adult Education – Badillo Annex**
Physical Address: 2000 Badillo Road, Baldwin Park, CA 91706
Date Built: 1985 Square Footage: 3,832
Purpose: Adult Education
# of Classrooms: ______ # Seats (ADA) Capacity: ______
Type of Structure: Concrete block; decorative concrete block
Roof Composition: Built-up tar & gravel
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments: ______

Site #27

Name of Building: **Adult Education – Kenmore Annex**
Physical Address: 3818 Monterey Avenue, Baldwin Park, CA 91706
Date Built: 1980 Square Footage: 3,421
Purpose: Adult Education
# of Classrooms: ________ # Seats (ADA) Capacity: ________
Type of Structure: Stucco on studs
Roof Composition: Asphalt shingles; built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments: ________

Site #28

Name of Building: **Adult Education – Santa Fe**
Physical Address: 4650 Baldwin Park Boulevard, Baldwin Park, CA 91706
Date Built: 1998 Square Footage: 1,287
Purpose: Adult Education
# of Classrooms: ________ # Seats (ADA) Capacity: ________
Type of Structure: Wood siding on studs
Roof Composition: Metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments: ________

Site #29

Name of Building: **Headstart/Bilingual Office**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1985 Square Footage: 1,855
Purpose: Headstart/Bilingual
# of Classrooms:________ # Seats (ADA) Capacity:________
Type of Structure: Wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #30

Name of Building: **Associate Superintendent – Business Services**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 4,517
Purpose: Business Services
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #31

Name of Building: **District Warehouse**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 15,593
Purpose: Warehouse
\# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs; tilt-up concrete panel
Roof Composition: Built-up smooth; none
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #32

Name of Building: **Data Processing Office**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1975 Square Footage: 2,077
Purpose: Data Processing Office
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #33

Name of Building: **Pupil Services Department**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1995 Square Footage: 960
Purpose: Pupil Services
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #34

Name of Building: **Elementary Education**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 3,591
Purpose: Elementary Education office
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Wood siding on studs; stucco on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #35

Name of Building: **Operations (Grounds)**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 7,443
Purpose: Operations (grounds)
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Stucco on studs; wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #36

Name of Building: **Maintenance Building**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 3,342
Purpose: Maintenance Building
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Metal siding on girts; wood siding on studs
Roof Composition: Metal; single membrane
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

	Details of Renovation	Date	Cost
#1			$
#2			$
#3			$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #37

Name of Building: **Carpenters Shop/Transportation Shop**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1960 Square Footage: 5,487
Purpose: Carpenters/Transportation Shop
# of Classrooms: N/A # Seats (ADA) Capacity: N/A
Type of Structure: Metal siding on girts
Roof Composition: Metal
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #38

Name of Building: **Police Office**
Physical Address: 3699 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1980 Square Footage: 864
Purpose: Police Office
# of Classrooms: # Seats (ADA) Capacity:
Type of Structure: Wood siding on studs
Roof Composition: Built-up smooth
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Site #39

Name of Building: **District Shop Building**
Physical Address: 3600 North Holly Avenue, Baldwin Park, CA 91706
Date Built: 1950 Square Footage: 457
Purpose: District Shop
# of Classrooms: # Seats (ADA) Capacity:
Type of Structure: Stucco on studs
Roof Composition: Asphalt shingles
Renovations (Qualifies as Seismic Retrofit? ☐ Yes ☐ No)

Details of Renovation	Date	Cost
#1		$
#2		$
#3		$

General Condition ☐ Excellent ☐ Good ☐ Fair ☐ Poor
Comments:

Section 1
Introduction

Throughout history, the residents of the City of Baldwin Park have dealt with the various natural hazards affecting the area. Photos, journal entries, and newspapers from the 1800's show that the residents of the area dealt with earthquakes, flooding and severe weather occasions.

Although there were fewer people in the area, the natural hazards adversely affected the lives of those who depended on the land and climate conditions for food and welfare. As the population continues to increase, the exposure to natural hazards creates an even higher risk than previously experienced.

The City of Baldwin Park is the 24th most populous City in Los Angeles County with an approximate population of 78,367[1], and offers the benefits of living in a Mediterranean climate. The City is characterized by the unique and attractive landscape that makes the area so popular. However, the potential impact of natural hazards associated with the terrain make the environment and population vulnerable to natural disaster situations.

The geographical area is subject to earthquakes, flooding, and severe weather occasions. It is impossible to predict exactly when these disasters will occur, or the extent to which they will affect the City. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the community, it is possible to minimize the losses that can result from these natural disasters.

Why Develop a Mitigation Plan?

As the costs of damage from natural disasters continue to increase, the community realizes the importance of identifying effective ways to reduce vulnerability to disasters. Natural hazard mitigation plans assist communities in reducing risk from natural hazards by identifying resources, information, and strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the District.

The plan provides a set of action items to reduce risk from natural hazards through education and outreach programs and to foster the development of partnerships, and implementation of preventative activities such as land use programs that restrict and control development in areas subject to damage from natural hazards.

The resources and information within the Mitigation Plan:

[1] 2002 U.S. Census Report.

- Establish a basis for coordination and collaboration among agencies and the public in the Baldwin Park Unified School District.
- Identify and prioritize future mitigation projects; and
- Assist in meeting the requirements of federal assistance programs.

The mitigation plan works in conjunction with other existing plans, including the Baldwin Park General Plan and SEMS Multi-hazard Functional Plan.

Whom Does the Mitigation Plan Affect?

The Baldwin Park Unified School District Natural Hazards Mitigation Plan affects the multiple school sites located within the Baldwin Park Unified School District.

Map 2 (Appendix E), shows major roads and school sites in the Baldwin Park Unified School District. This plan provides a framework for planning for natural hazards. The resources and background information in the plan are applicable throughout the affected areas servicing the Baldwin Park community.

Natural Hazard Land Use Policy in California

Planning for natural hazards should be an integral element of any district, city or agency land-use planning program.

The continuing challenge faced by local officials and state government is to keep the network of local plans effective in responding to the changing conditions and needs of California's diverse communities, particularly in light of the very active seismic region in which we live.

This is particularly true in the case of planning for natural hazards where communities must balance development pressures with detailed information on the nature and extent of hazards.

Planning for natural hazards, calls for local plans to include inventories, policies, and ordinances to guide development in hazard areas. These inventories should include the compendium of hazards facing the District, the built environment at risk, the personal property that may be damaged by hazard events, and most of all, the people who live in the shadow of these hazards.

Support for Natural Hazard Mitigation

All mitigation is local, and the primary responsibility for development and implementation of risk reduction strategies and policies lies with local jurisdictions. Local jurisdictions, however, are not alone. Partners and resources exist at the regional, state and federal levels. Numerous California state agencies have a role in natural hazards and natural hazard mitigation. Some of the key agencies include:

- The Governor's Office of Emergency Services (OES) is responsible for disaster mitigation, preparedness, response, recovery, and the administration of federal funds after a major disaster declaration;

- The Southern California Earthquake Center (SCEC) gathers information about earthquakes, integrates this information on earthquake phenomena, and communicates it to end-users and the general public to increase earthquake awareness, reduce economic losses, and save lives.

- The California Division of Forestry (CDF) is responsible for all aspects of wildland fire protection on private and state land, and administers forest practices regulations, including landslide mitigation, on non-federal lands.

- The California Division of Mines and Geology (DMG) is responsible for geologic hazard characterization, public education, the development of partnerships aimed at reducing risk, and exceptions (based on science-based refinement of tsunami inundation zone delineation) to state mandated tsunami zone restrictions; and

- The California Division of Water Resources (DWR) plans, designs, constructs, operates, and maintains the State Water Project; regulates dams, provides flood protection and assists in emergency management. It also educates the public, and serves local water needs by providing technical assistance.

Plan Methodology

Information in the Mitigation Plan is based on research from a variety of sources. Staff from the Baldwin Park Unified School District conducted data research and analysis, facilitated Steering Committee meetings and public workshops, and developed the final mitigation plan. The research methods and various contributions to the plan include:

Input from the Steering Committee:

Prior to each Steering Committee meeting a core group of consultants, District administrative officials, and the District Superintendent, gathered together to assign research tasks and develop Steering Committee meeting agendas. The Baldwin Park Unified School District Hazard Mitigation Steering Committee convened about 4 weeks (a total of 4 meetings) to guide development of the Mitigation Plan. The Committee played an integral role in developing the mission, goals, and action items for the mitigation plan. The Committee consisted of representatives of public and private agencies and organizations in Baldwin Park Unified School District.

State and federal guidelines and requirements for mitigation plans:

Following are the Federal requirements for approval of a Natural Hazard Mitigation Plan:

- Open public involvement, with public meetings that introduce the process and project requirements.
- The public must be afforded opportunities for involvement in: identifying and assessing risk, drafting a plan, and public involvement in approval stages of the plan.
- Community cooperation, with opportunity for other local government agencies, the business community, educational institutions, and non-profits to participate in the process.
- Incorporation of local documents, including a District Facility Master Plan, Building Codes, and other pertinent documents.

The following components must be part of the planning process:

- Complete documentation of the planning process;
- A detailed risk assessment on hazard exposures in the community;
- A comprehensive mitigation strategy, which describes the goals and objectives, including proposed strategies, programs and actions to avoid long-term vulnerabilities;
- A plan maintenance process, which describes the method and schedule of monitoring, evaluating and updating the plan and integration of the All Hazard Mitigation Plan into other planning mechanisms;
- Formal adoption by the Baldwin Park Unified School District Board of Education; and
- Plan Review by both State OES and FEMA.

These requirements are spelled out in greater detail in the following plan sections and supporting documentation.

A minimum of two public hearings (or other public forums) is recommended to meet the requirement for public participation, in addition to the inclusion of representatives from outside organizations on the planning committee itself. The timing and scheduling of the hearings may vary, but will generally be held during a Board meeting.

Baldwin Park Unified School District staff examined existing mitigation plans from around the country, current FEMA hazard mitigation planning standards (386 series) and the State of California Natural Hazards Mitigation Plan Guidance.

Other reference materials consisted of county and city mitigation plans, including:

- Clackamas County (Oregon) Natural Hazards Mitigation Plan
- Six County (Utah) Association of Governments
- Upper Arkansas Area Risk Assessment and Hazard Mitigation Plan

- Urbandale-Polk County, Iowa Plan
- Hamilton County, Ohio Plan
- El Monte School District (California)

Hazard specific research: Baldwin Park Unified School District staff collected data and compiled research on three (3) hazards: earthquakes, flooding, and severe weather occasions. Research materials came from state agencies including OES and FEMA. The Baldwin Park Unified School District staff conducted research by referencing historical local newspapers, researching the Internet and locating Baldwin Park Unified School District information in historical documents.

The Baldwin Park Unified School District Hazard Mitigation Steering Committee identified current mitigation activities, resources and action items for those research materials.

Public Hearings

The Baldwin Park Unified School District staff facilitated two hearings to gather comments and ideas from citizens residing in the Baldwin Park Unified School District about mitigation planning and priorities for mitigation plan goals. Although the public hearing targeted citizens within the District, public notification welcomed any interested party to participate in the process. The public hearings were held June 22, 2004 and September 14, 2004.

The resources and information cited in the mitigation plan provide a strong local perspective and help identify strategies and activities to make Baldwin Park Unified School District more disaster resilient.

How Is the Plan Used?

Each section of the mitigation plan provides information and resources to assist people in understanding the Baldwin Park Unified School District and the hazard-related issues facing students, teachers, and the environment. Combined, the sections of the plan work together to create a document that guides the mission to reduce risk and prevent loss from future natural hazard events.

The structure of the plan enables people to use a section of interest to them. It also allows Baldwin Park Unified School District staff to review and update sections when new data becomes available. The ability to update individual sections of the mitigation plan places less of a financial burden on Baldwin Park Unified School District. Decision-makers can allocate funding and staff resources to selected pieces in need of review, thereby avoiding a full update, which can be costly and time-consuming. New data can be easily incorporated, resulting in a natural hazards mitigation plan that remains current and relevant to Baldwin Park Unified School District.

The mitigation plan is organized in three parts. Part 1 contains an executive summary, introduction, District profile, risk assessment and multi-hazard, plan maintenance. Part II contains the six natural hazard sections and Part III includes the appendices. Each section of the plan is described below.

Executive Summary: Five-Year Action Plan

The Five-Year Action Plan provides an overview of the mitigation plan mission, goals, and action items. The plan action items are included in this section, and address multi-hazard issues, as well as hazard-specific activities that can be implemented to reduce risk and prevent loss from future natural hazard events.

Section 1: Introduction

The introduction describes the background and purpose of developing the mitigation plan for Baldwin Park Unified School District.

Section 2: Community Profile

This section presents the history, geography, demographics, and socioeconomics of Baldwin Park Unified School District. It serves as a tool to provide an historical perspective of natural hazards affecting the District and the communities it serves.

Section 3: Risk Assessment

This section provides information on hazard identification, vulnerability and risk associated with natural hazards in Baldwin Park Unified School District.

Section 4: Multi-Hazard Goals and Action Items

This section provides information on the process used to develop goals and action items that cut across the three natural hazards addressed in the mitigation plan.

Section 5: Plan Maintenance

This section provides information on plan implementation, monitoring and evaluation.

Part II: Hazard Specific Information

Hazard Specific Information on the six chronic hazards is addressed in this plan. Chronic hazards occur with some regularity and may be predicted through historic evidence and scientific methods. The chronic hazards addressed in the plan include:

- Section 1: Earthquake
- Section 2: Flooding
- Section 3: Severe Weather Occasions

Catastrophic hazards do not occur with the frequency of chronic hazards, but can have devastating impacts on life, property, and the environment. In Southern California, because of the geology and terrain, earthquake, earth movement, flooding and wildfire also have the potential to be catastrophic as well as chronic hazards. For the coastal areas of Southern California, tsunamis, while very rare, have the potential to calamitously devastate low-lying coastal areas.

Each of the hazard specific sections includes information on the history, hazard causes and characteristics, hazard assessment, goals and action items, and local, state, and national resources.

Part III: Resources

The plan appendices are designed to provide users of the Baldwin Park Unified School District Natural Hazards Mitigation Plan with additional information to assist them in understanding the contents of the mitigation plan, and potential resources to assist them with implementation.

Appendix A: Plan Resource Directory

The resource directory includes city, regional, state, and national resources and programs that may be of technical and/or financial assistance to Baldwin Park Unified School District during plan implementation.

Appendix B: Public Participation Process

This appendix includes specific information on the various public processes used during development of the plan.

Appendix C: List of Acronyms

This section provides a list of acronyms for city, regional, state, and federal agencies and organizations that may be referred to within the Baldwin Park Unified School District Natural Hazards Mitigation Plan.

Appendix D: Glossary

This section provides a glossary of terms used throughout the plan.

Appendix E: List of Maps

This section provides all of the maps referenced throughout the plan.

Section 2
Community Profile

Why Plan for Natural Hazards in Baldwin Park Unified School District

Natural hazards impact students, staff, and property, of the Baldwin Park Unified School District. Earthquakes, flooding and severe weather occasions have exposed Baldwin Park Unified School District students and staff to the financial and emotional costs of recovering after natural disasters. The risk associated with natural hazards increases as more people move to areas affected by natural hazards.

Even in those communities that are essentially "built-out", i.e., have little or no vacant land remaining for development, population density continues to increase as low-density housing is replaced with medium and high-density development projects. Increasing population density is directly related to District enrollment.

The Baldwin Park Unified School District consists of 20 school sites, a Children's Center, Adult and Community Education Facilities, Head Start/State Preschool, and the District Office. All the District's facilities are located within the City of Baldwin Park.

The inevitability of natural hazards, and growing population and activity with the cities served by the District create an urgent need to develop strategies, coordinate resources, and increase public awareness to reduce the risk and prevent loss from future natural events. Identifying the risks posed by natural hazards, and developing strategies to reduce the impact of a hazard event can assist in protecting life and property within the District. The cities, their residents, and businesses can work together with the District to create a natural hazard plan that addresses the potential impacts of hazard events.

Geography and the Environment

The Baldwin Park Unified School District is located in the San Gabriel Valley with all of the school sites located in the City of Baldwin Park. The City of Baldwin Park is located approximately 20 miles from downtown Los Angeles in the San Gabriel Valley and covers 6.9 square miles.

The terrain is considered flat with little change in elevation. The City of Baldwin Park has an elevation of 95 feet.

Baldwin Park Unified School District Profile

As of September 1882, the first schoolhouse was built on the southeast corner of North Maine and Los Angeles Avenues in 1884. It contained two rows of double seats, a central aisle leading to the teacher's desk, and a heating stove at the north end. Mr. Frazier was the first teacher. In April 1888, The Vineland School District was established according to county records. The first Board of Trustees took office on July 1, 1888, and elected Miss Jessie Washburn to teach the district school that fall. The building was sold in 1890 and moved to another site for a private residence. The district built the second school in 1890 and hired two teachers, Miss Ellen Lang and Miss Venna O. Finney. The second schoolhouse was relegated to the past in 1912. It later became a private Japanese school and stood as a landmark until it caught fire on September 5, 1936, and burned to the ground.

On January 10, 1910, Baldwin Park, then known as Vineland, joined the Covina Union High School District. All high school students went to Covina until Baldwin Park School District unified in 1960.

In 1912, a larger school was built and it was named Central School. It was completed in 1922.

In 1914, the community of Vineland changed its name to Baldwin Park, and the name of the district was officially changed to Baldwin Park School District.

Another school was started in 1924 and it was completed in 1927. Margaret Heath had been a teacher since 1906, so in 1924 she was appointed principal of the new school and John Hampton Watts was appointed the district's first superintendent. Upon Mrs. Heath's retirement in 1930, the school was named in her honor.

Central School, built in 1912, was sold to the City of Baldwin Park and a new Central School was built in 1952 at a different location.

Heath School, built in 1924, was torn down and a new Heath School was built on the same site in 1954. As the district continued to grow, Kenmore, the third school, was built in 1939. It is in full operation today. During the 1940s, the three schools in the district adequately housed the elementary grade students of Baldwin Park.

After World War II, growth to the area continued throughout the 1950s and 1960s, so new schools were built accordingly. The last new school, Olive, was built in 1968, although quite a few relocatable classrooms have been added to the elementary schools, the adult school, and the continuation high school.

Today, there are 13 elementary schools, 4 junior high schools, 2 comprehensive high schools, one continuation high school, an adult school of 5,000, and a Children's Center. The District (k-12) has grown from 14 students in 1884 to 15,000 children 2004.

Flooding in the Los Angeles areas was recorded as early as 1771, when the San Gabriel overflowed its banks destroying crops planted near the original San Gabriel Mission. Spanish missionaries documented flooding along the San Gabriel and Los Angeles in 1779. Early documentation of rainfall demonstrated drastic variations in climate. In 1883-84, the rainfall was 38 inches and in 1898-99 the rainfall was 5.59 inches. Settlers and historians documented the great floods of 1844, 1865, 1884, and 1889. Large amounts of debris flowing in the rivers, due to heavy rain and flash floods would eventually collect creating natural dams in the river resulting in wide spread flooding throughout the valley.

As quickly as the rains arrived they also subsided. In 1844-45, and 46 a drought was recorded with temperatures reaching 110 in October of 1846. This was taking a severe toll on cattle and horses. Without modern technology there was no way to predict the sever rainstorm and temperature drop that would occur on December 24, 1846. Twelve (12) inches of rain fell in a 24-hour period accompanied by a dramatic drop in temperature resulting in a large loss of cattle and horses.

The flood of 1914 was not considered the worst; however, by this time there were new obstacles that contributed to flooding. Railroad bridges were supported by pilings in close proximity to each other and served as a barrier for debris and rocks in the water flow. The collection of debris occurred quickly causing flooding and the destruction of farmland, dwellings as well as the destruction of many bridges.

The flood of 1914 was the catalyst that formed the Los Angeles County Flood Control District. In the years 1917 and 1924 two major bonds were passed that started construction of a flood control system. In 1930 construction on dams in mountain canyons had started to control water flow and provide reservoirs. In 1941 construction had begun on the Santa Fe Dam, but was halted in 1943 due to World War II. After the war construction was started in 1946 and due to metal shortages to construct the slide gates the project was not completed until 1949.

The Santa Fe Dam was authorized by the Flood Control Act of 1936 and one of several projects used to manage water flow. In the early part of the century (1900) it was determined that the San Gabriel needed to be controlled in order to control flooding. Three dams were constructed north of the Santa Fe Dam. In 1934 the Cogswell Dam was constructed 18 miles north of the Santa Fe. In 1935 the Morris Dam was constructed six miles north of the Santa Fe and in 1939 the San Gabriel Dam was constructed which is nine miles north of the Santa Fe. The Whittier Narrows Dam is eight miles downstream and was not constructed until 1957. Water spreading grounds did not begin construction until 1951 and were completed in 1991.

The first earthquake recorded in the area was in 1769. A group of Spanish missionaries had moved from San Diego to an area, that is today, known as Turnbull Canyon. This earthquake was believed to reach a magnitude of 6.0. While exploring the area there was evidence of frequent earthquakes struck with a magnitude of 6.3 that destroyed over 40% of the Baldwin Park Unified School District. A new school was built which opened for enrollment in 1939. Since this event there have been two other significant seismic events. The Whittier Narrows earthquake occurred on October 1, 1987 with a magnitude of 5.8. The second recent major event was the Northridge earthquake that occurred on January 17, 1994 reaching a magnitude of 6.7.

Highways and Roads

There are three major freeways that accommodate major traffic flow for the cities serviced by the District. Baldwin Park is bounded by the I-210 on the north, by the I-10 on the south and the I-605 on the west.

There are major arterial roads that are common to bordering cities. Ramona Boulevard is an east/west road and runs through Baldwin Park, El Monte and West Covina. Baldwin Park Boulevard, Maine Avenue, and Merced Avenue are north/south roads that run through the central portion of Baldwin Park, West Covina and City of Industry. Ramona Boulevard is an east/west road and runs through the central portion of Baldwin Park and intersects Baldwin Park Boulevard, Merced Avenue, and Maine Avenue.

Rail System

The railroad system serves commercial and light rail passenger transportation. The rail system runs east through the central portion of Baldwin Park. Southern pacific, Am Track, and Metro Link utilize the same rail system in Baldwin Park. Baldwin Park also has a Metro Link station located adjacent to the Civic Center.

Air Travel

The City of Baldwin Park is within minutes of the Ontario (22.78 miles, a 25 minute drive), Burbank (30.96 miles, a 34 minute drive) and Los Angeles (34.97 miles, a 40 minute drive) Airports.

Bus Transportation

The City of Baldwin Park is home to a major bus terminal, Metropolitan Transit Authority (M.T.A.), which is the hub for bus transportation to and from Los Angeles. The area is also served by Foothill transit, which shares the Baldwin Park Terminal with the M.T.A.

The Baldwin Park Unified School District utilizes a private transportation company for busing students to and from school sites. This includes the transportation of students with special physical needs. The bus system routinely transports 600 students a day while school is in session.

Major Rivers

The nearest major rivers are the Rio Hondo and the San Gabriel, which are managed by the Los Angeles County Flood Control District. These rivers do not have any potential impact on the Baldwin Park Unified School District. Normally these rivers are dry and only carry a significant amount of water during a major rainstorm. The Rio Hondo and San Gabriel vary in width and depth. The minimum depth is 10 feet to a maximum of 15 feet. This Los Angeles County Flood

Control District has completed water channel projects, within the last 20 years, which will accommodate heavy rainfall and a large volume of water without rising to, or cresting, the levees.

Climate

The climate in the immediate area can be characterized as a Mediterranean climate. The average monthly temperature in the Baldwin Park Unified School District ranges from 47.2 degrees in the winter months to 85.8 degrees in the summer months. Temperatures can vary over a wide range, particularly when there is a Santa Ana wind condition. These winds will produce higher temperatures and very low humidity. During 2003 the highest temperature was recorded on October 21st at 97 degrees and the lowest to December 28th at 39 degrees. Often, summer temperatures do not exceed 95 degrees and winter temperatures do not fall below 42 degrees.

The rainfall for the area averages 15.14 inches per year. The total for 2003 was slightly below average at 13.38 inches. However the term "average annual rainfall" can be misleading because over recorded history the area has had in excess of six inches of rainfall in a 24-hour period during El Nino. In the mid 1800's the area experienced as much as 38 inches of annual rainfall.

Actual rainfall in Southern California tends to fall in large amounts during sporadic and often heavy rainstorms rather than consistently over storms at somewhat regular intervals. In short, rainfall in Southern California might be characterized as "feast or famine" within a single year. Because the metropolitan basin is largely built out, water originating in higher elevation communities can have a sudden impact on adjoining communities that have a lower elevation.

Minerals and Soil

The characteristics of the minerals and soils present in the area that encompasses the Baldwin Park Unified School District indicate the potential types of hazards that may occur. Rock hardness and soil characteristics can determine whether or not an area will be prone to geologic hazards such as earthquakes, landslides and liquefaction resulting from a significant seismic event.

The Department of Mines and Geology completed a study for the Baldwin Park Quadrangle. This is an area east of Los Angeles that is approximately 6.9 square miles. This area includes the City of Baldwin Park. The study encompasses the entire Baldwin Park Unified School District.

Liquefaction-induced ground failure has historically been a major cause of earthquake damage in Southern California. During the 1971 San Fernando and 1994 Northridge earthquakes, significant damage was done to roads, utility pipelines, buildings and other structures in the Los Angeles area was caused by liquefaction-induced ground displacement. Although some damage that was realized by the Baldwin Park Unified School District, liquefaction did not occur during these events in the Baldwin Park Quadrangle.

Localities most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface. These conditions exist for the Baldwin Park Unified School District and surrounding area.

The Baldwin Park Unified School District exists in a 6.9 square mile area that is made up of loose sandy soil, gravel, sediment, and silt layers. The area also has a shallow water table (within 40 feet of the surface).

If a major seismic event were to occur reaching a magnitude of 6.7 to 7.0, or greater, liquefaction could occur depending upon peak ground acceleration.

Although landslides can be induced by seismic activity, the Baldwin Park Unified School District is not located in an area where landslides would present a hazard to the District.

Other Significant Geological Features

The Baldwin Park Unified School District, like most areas in the Los Angeles Basin, lie over or near the area of one or more known earthquake faults, and potentially many more unknown faults, particularly so-called lateral or blind thrust faults.

There are many faults that can affect the Los Angeles Basin. These and other faults may also affect the Baldwin Park Unified School District. The following is a list of faults gathered from the Department of Mines and Geology that could impact the District:

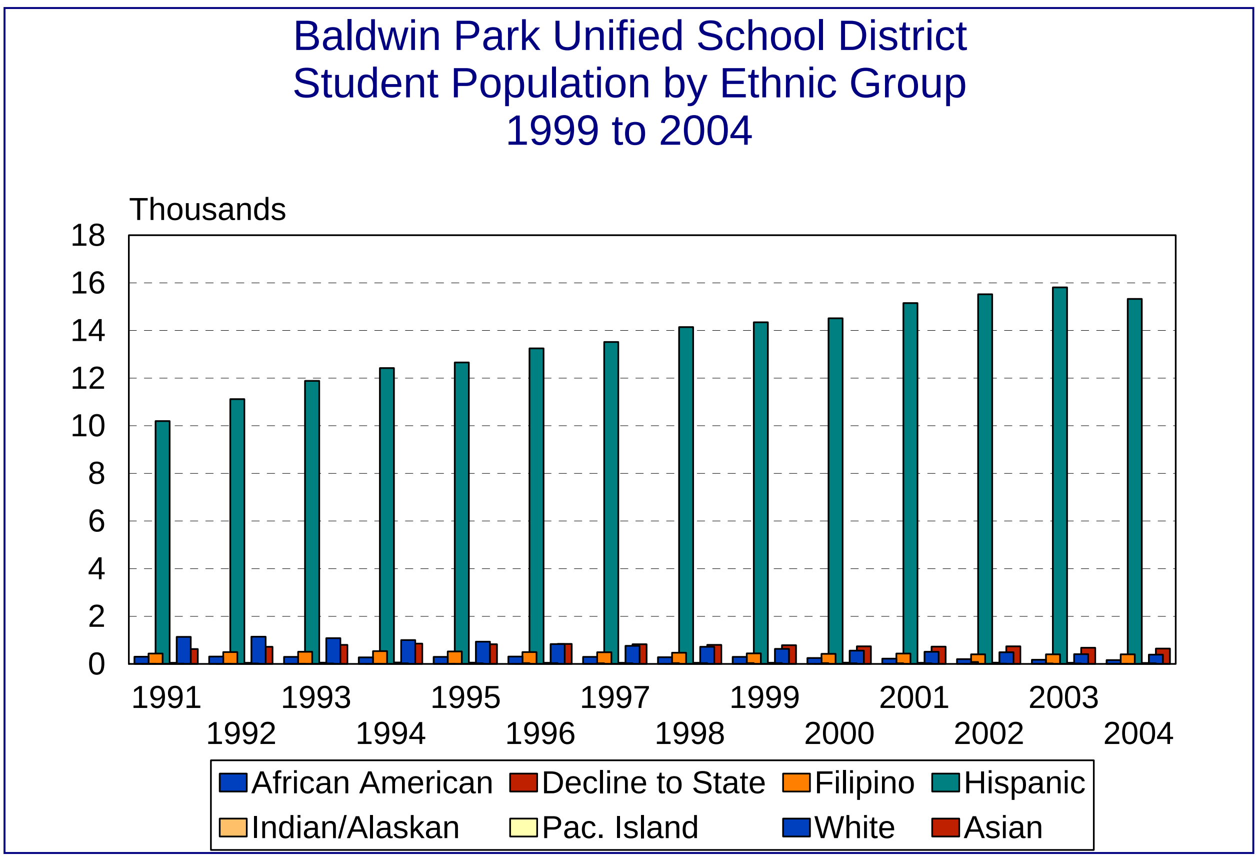
- San Andreas
- San Gabriel
- San Jacinto
- Newport Inglewood
- Palos Verdes
- Whittier
- Santa Monica
- Sierra Madre
- San Jose
- Clamshell-Sawpit
- Puente Hills Blind Thrust
- Raymond Hill
- Workman Hill

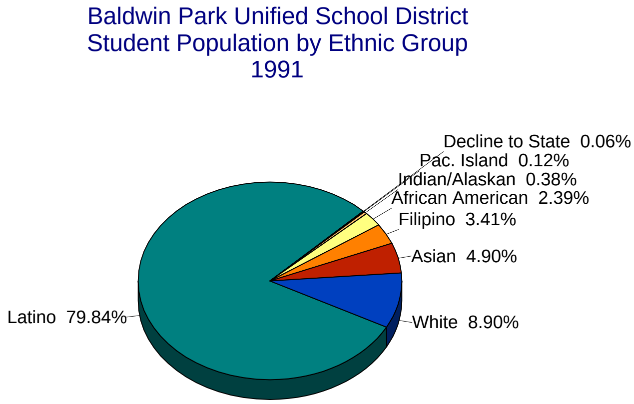
The Los Angeles Basin has a history of powerful and relatively frequent earthquakes, dating back to the powerful 8.0+ San Andreas earthquake of 1857 that did substantial damage to the relatively few buildings that existed at the time. Paleoseismological research indicates that large (8.0+) earthquakes occur on the San Andreas Fault at intervals between 45 and 322 years, with an average interval of 140 years. Other lesser faults have also caused very damaging earthquakes since 1857. Notable earthquakes include the Long Beach earthquake of 1933, the San Fernando Earthquake of 1971, the 1987 Whittier Earthquake, and the 1994 Northridge Earthquake.

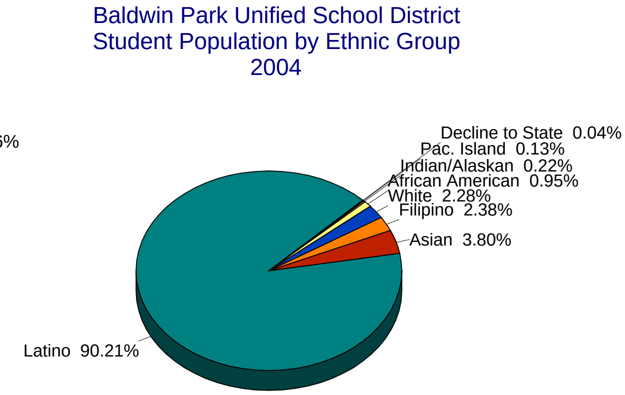
Population and Demographics

The Baldwin Park Unified School District serves over 15,587 children at twenty school sites. It employs over 2,111 full- and part-time persons in certificated, management, and classified positions. The schools are organized as multiple sites.

The City of Baldwin Park is served by the District and has experienced rapid population growth from 1980 to 2000 (50,554 to 75,837). The Baldwin Park Unified School District has published the student population growth from 1991 to 2000. In 1991 the student population was 12,770, which increased over a 14-year prior to 16,990 (an increase of over 30%). This growth in student population is shown in the graphs below and on the following page.







The increase of people living in the area of the Baldwin Park Unified School District creates more community exposure and changes how City and the District prepare for and respond to natural hazards. For example, more people living on the urban fringe can increase risk of fire. Wildfire has an increased chance of starting due to human activities in the urban/rural interface, and has the potential to injure more people and cause more property damage. But an urban/wild land fire is not the only exposure to the Baldwin Park Unified School District. In the 1987 publication, Fire Following Earthquakes, issued by the All Industry Research Advisory Council, Charles Scawthorn explains how a post-earthquake urban conflagration would develop. The conflagration would be started by fires resulting from earthquake damage, but would be made much worse by the loss of pressure in the fire mains, caused by lack of electricity to power water pumps, and/or loss of water pressure resulting from broken fire mains.

Increased density can affect risk. For example, narrower streets are more difficult for emergency service vehicles to navigate, the higher ratio of residents to emergency responders affects response times, and homes located closer together increase the chances of fires spreading.

The anticipated growth in population density over the next few years will create greater service loads on the built infrastructure, including roads, water supply, sewer services, and storm drains.

Natural hazards do not discriminate, but the impacts in terms of vulnerability and the ability to recover vary greatly among the population. According to Peggy Stahl of the Federal Emergency Management Agency (FEMA) Preparedness, Training, and Exercise Directorate, 80% of the disaster burden falls on the public. Within that number, a disproportionate burden is placed upon special needs groups: women, children, minorities, and the poor.

The ethnic and cultural diversity suggests a need to address multi-cultural needs and services.

The number of people that live at or below the poverty level in the District area is approximately 18.2% (or 13,541 individuals) of the population, which would statistically be reflected in the student population. That compares with the following percentages in other jurisdictions:

- Los Angeles County: 17.9%
- California: 14.2%

- United States: 12.4%

Per Capita income for the City of Baldwin Park is $11,562. This compares with the following per capita income for other jurisdictions:

- Los Angeles County: $20,683
- California: $22.711
- United States: $21,587

Vulnerable populations, including seniors, disabled citizens, women, and children, as well as those people living in poverty, may disproportionately be impacted by natural hazards.

Examining the reach of hazard mitigation policies to special needs populations may assist in the increasing access to services and programs. FEMA's Office of Equal Rights addresses this need by suggesting that agencies and organizations planning for natural disasters identify special needs populations, make recovery centers more accessible, and review practices and procedures to remedy any discrimination in relief application or assistance.

The cost of natural hazards recovery can place an unequal financial responsibility on the general population when on a small proportion may benefit from governmental funds used to rebuild private structures. Discussions about natural hazards that include local citizen groups, insurance companies, and other public and private sector organizations can help ensure that all members of the population are a part of the decision-making processes.

Land and Development

Development in Southern California from the earliest days was a cycle of boom or bust. The Second World War however dramatically changed the cycle. Military personnel and defense workers came to Southern California to fill the logistical needs created by the war effort. The available housing was rapidly exhausted and existing commercial centers proved inadequate for the influx of people. Immediately after the war, construction began on the freeway system, and the face of Southern California was forever changed. Home developments and shopping centers sprung up everywhere and within a few decades the central basin of Los Angeles County was virtually built out. This pushed new development further and further away from the urban center.

The environment of most Los Angeles County cities is nearly identical with that of their immediate neighbors and the transition from an incorporated municipality to another is seamless to most people. Seamless too are the exposures to the natural hazards that affect all of Southern California.

Section 3
Risk Assessment

What is a Risk Assessment?

Conducting a risk assessment can provide information: on the location of hazards, the value of existing land and property in hazard locations, and an analysis of risk of life, property, and the environment that may result from natural hazard events. Specifically, the three levels of a risk assessment are as follows:

1) Hazard Identification

This is the description of the geographic extent, potential intensity and the probability of occurrence of a given hazard. Maps are frequently used to display hazard identification data. The Baldwin Park Unified School District identified three major hazards that affect this geographic area. These hazards – earthquakes, flooding and severe weather occasions – were identified through an extensive process that utilized input from the Hazard Mitigation Steering Committee. The geographic extent for two of the main identified hazards (earthquakes and flooding) have been identified by the Baldwin Park Unified School District, the California Department of Conservation, and the U.S. Army Corps of Engineers using the best available data, and is illustrated by the charts/maps listed in *Table 3-1*.

2) Profiling Hazard Events

This process describes the causes and characteristics of each hazard, how it has affected Baldwin Park Unified School District in the past, and what part of the Baldwin Park Unified School District's population, infrastructure, and environment has historically been vulnerable to each specific hazard. A profile of each hazard discussed in this plan is provided in each hazard section. For a full description of the history of hazard specific events, please see the appropriate hazard chapter.

3) Vulnerability Assessment/Inventorying Assets

This is a combination of hazard identification with an inventory of the existing (or planned) property development(s) and population(s) exposed to a hazard. Critical facilities are of particular concern because these entities provide essential products and services to the general public that are necessary to preserve the welfare and quality of life in the region and fulfill important public safety, emergency response, and/or disaster recovery functions. The critical facilities have been identified, mapped, and are listed in *Table 3-1* of this section.

4) Risk Analysis

Estimating potential losses involves assessing the damage, injuries, and financial costs likely to be sustained in a geographic area over a given period of time. This level of analysis involves using mathematical models. The two measurable components of risk analysis are magnitude of the harm that may result and the likelihood of the harm occurring. Describing vulnerability in terms of dollar losses provides the community and the state with a common framework in which to measure the effects of hazards on assets.

5) Assessing Vulnerability/Analyzing Development Trends

This step provides a general description of land uses and development trends within the community so that mitigation options can be considered in land use planning and future land use decisions. This plan provides a description of the character of Baldwin Park Unified School District in the Community Profile. This description includes the geography and environment, population and demographics, land use and development, and housing and community development. Analyzing these components of Baldwin Park Unified School District can help in identifying potential problem areas and can serve as a guide for incorporating the goals and ideas contained in this mitigation plan into other community development plans.

Table 3-1
List of Hazard Mitigation Plan Charts/Maps

Map #	Type of Map	Section of the Plan
1	Baldwin Park Unified School District Location	Appendix D – Map 1
2	Baldwin Park Unified School District School Sites	Appendix E – Map 2
3	Baldwin Park Unified School District Evacuation Routes	Appendix E – Map 3
4	Los Angeles River Watershed	Appendix E – Map 4
5	San Gabriel River Watershed	Appendix E – Map 5
6	Liquefaction Zone Baldwin Park Quadrangle	Appendix E – Map 6
7	Flood Inundation Santa Fe Dam	Appendix E – Map 7
8	Fault/Fault Zones (Earthquake Hazard)	Part II Section II

Note: *The information on the maps in this plan was derived from a variety of resources found in Appendix A. Care was taken in the creation of these maps, but is provided "as is" Baldwin Park Unified School District cannot accept any responsibility for any errors, omissions or positional accuracy, and therefore, there are no warranties that accompany these produces (the maps). Although information from land surveys may have been used in the creation of these products, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.*

Hazard assessments are subject to the availability of hazard-specific data. Gathering data for a hazard assessment requires a commitment of resources on the part of participating organizations and agencies. Each hazard-specific section of the plan includes a section on hazard identification using data and information from city, county or state agency sources.

Regardless of the data available for hazard assessments, there are numerous strategies the District can take to reduce risk. These strategies are described in the action items detailed in each hazard section of this Plan. Mitigation strategies can further reduce disruption to critical services, reduce the risk to human life, and alleviate damage to personal and public property and infrastructure. Action items throughout the hazard sections provide recommendations to collect further data to map hazard locations and conduct hazard assessments.

Federal Requirements for Risk Assessment

Recent federal regulations for hazard mitigation plans outlined in FEMA Interim Final Rule 44 CFR Part 201 include a requirement for risk assessment. This risk assessment requirement is intended to provide information that will help communities to identify and prioritize mitigation activities that will reduce losses from the identified hazards. There are three hazards profiled in the mitigation plan, including *earthquakes, flooding and severe weather occasions.* The Federal criteria for risk assessment and information on how the Baldwin Park Unified School District Natural Hazard Mitigation Plan meets those criteria is outlined in *Table 3-2* below.

Table 3-2
Federal Criteria for Risk Assessment

Section 322 Plan Requirement	How is this addressed?
Identifying Hazards	Each hazard section includes an inventory of the best available data sources that identify hazard areas. To the extent GIS data are available, the District developed maps identifying the location of the hazards. The Executive Summary and the Risk Assessment sections of the plan include a list of the hazard maps.
Profiling Hazard Events	Each hazard section includes documentation of the history, and causes and characteristics of the hazard.
Assessing Vulnerability: Identifying Assets	Where data is available, the vulnerability assessment for each hazard addressed in the mitigation plan includes an inventory of all publicly owned land within hazardous areas. Each hazard section provides information on vulnerable areas in the Community Issues section. Each hazard section also identifies potential mitigation strategies.
Assessing Vulnerability: Estimating Potential Losses	The Risk Assessment Section of this mitigation plan identifies key critical facilities and lifelines and includes a map of these facilities. Vulnerability assessments have been completed for the hazards addressed in the plan, and quantitative estimates were made for each hazard where data was available.
Assessing Vulnerability: Analyzing Development Trends	The Baldwin Park Unified School District Profile Section of this plan provided a description of the development trends in the area, including the geography and environment, population and demographics, land use and development, housing and community development, employment and industry, and transportation and commuting patterns.

Critical Facilities and Infrastructure

Facilities critical to the District and government response and recovery activities (i.e., life safety and property and environmental protection) include: 911 centers, emergency operations centers, police and fire stations, public works facilities, communications centers, sewer and water facilities, hospitals, bridges and roads, and American Red Cross shelters. Facilities that, if damaged, could cause serious secondary impacts may also be considered “critical.” A hazardous material facility is one example of this type of critical facility.

Critical and essential facilities are those facilities that are vital to the continued delivery of key government services or that may significantly impact the public’s ability to recover from the emergency. These facilities may include: buildings such as the jail, law enforcement center, public services building, community corrections center, the courthouse, and juvenile services building and other public facilities such as schools. Map #3 illustrates the emergency evacuation routes within the City of Baldwin Park that would be utilized by the District.

Summary

The District has to rely on the fact the infrastructure of the City of Baldwin Park is in tact as the infrastructure necessary to support the District. This includes natural hazards mitigation strategies that can reduce the impacts concentrated at large employment and industrial centers, public infrastructure, and critical facilities. Natural hazard mitigation for industries and employers may include developing relationships with emergency management services and their employees before disaster strikes, and establishing mitigation strategies together. Collaboration among the public and private sector to create mitigation plans and actions can reduce the impacts of natural hazards.

Section 4
Multi-Hazard Goals and Action Items

This section provided information on the process used to develop goals and action items that pertain to the three natural hazards addressed in the mitigation plan. It also describes the framework that focuses the plan on developing successful mitigation strategies. The framework is made up of there parts: the Mission, Goals and Action Items.

Mission

The mission of the Baldwin Park Unified School District's Natural Hazards Mitigation Plan is to promote sound District policy designed to protect students, faculty and staff, infrastructure, school sites, critical support facilities, and the environment from natural hazards. This can be achieved by increasing awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the District towards building a safer and more sustainable District.

Goals

The plan goals describe the overall direction that Baldwin Park Unified School District can take to minimize the impacts of natural hazards. These goals are stepping-stones between the broad direction of the mission statement and the specific requirements that are outline in the action items.

Action Items

The action items are a listing of activities in which the District can be engaged to reduce risk. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that the District may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

Mitigation Plan Goals and Public Participation

The Plan goals help to guide direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

Protect Life and Property

- Implement activities that assist in protecting lives by making our schools, support facilities, and other property more resistant to natural hazards.

- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.

- Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.

- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.

- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Emergency Services

- Establish a policy to ensure mitigation projects for critical facilities, services, and infrastructure.

- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

- Coordinate and integrate natural hazard mitigation activities, where appropriate, with current District emergency operations plans and procedures.

Public Participation

- Public input during development of the mitigation plan assisted in creating plan goals. Meetings with the project Core Group and Steering Committee, served as methods to obtain input and identify priorities in developing goals for reducing risk and preventing loss from natural hazards in the Baldwin Park Unified School District.

Natural Hazard Mitigation Plan Action Items

The mitigation plan identifies short- and long-term action items developed through data collection and research, and the public participation process. Mitigation plan activities may be considered for funding through Federal and State grant programs, and when other funds are made available through the city. Action items address multi-hazard (MH) and hazard specific issues. To help ensure activity implementation, each action item includes information on the timeline and coordinating organizations. Upon implementation, the coordinating organizations may look to partner organizations for resources and technical assistance.

Coordinating Organization

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. For the Baldwin Park Unified School District, the Administrative staff in Business Services will be the main coordinating organization. Additional coordinating organizations may include local, city, or regional agencies that are capable of or responsible for implementing further activities and programs.

Time Line

Action items include both short- and long-term activities. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that city agencies may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five year (or more) to implement.

Ideas for Implementation

Each action item includes ideas for implementation and potential resources, which may include grant programs or human resources.

Plan Goals Addressed

The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins.

Constraints

Constraints may apply to some of the District's action items. These constraints unfortunately result from decreased or lack of state and federal funds, increased insurance costs, and a general poor health of the California economy.

Project Evaluation

The Hazard Mitigation Steering Committee has reviewed two documents that comprise the District's Capital Improvement Plan. The first document is an evaluation of each school site that includes all improvements necessary for mitigation purposes. The second document is the Implementation Plan that prioritizes each need for each site. The process of prioritizing was based on need and available funding. After review the Hazard Mitigation Steering Committee supported the Capital Improvement Plan that also addresses mitigation needs.

Multi-Hazard Action Items

Multi-hazard action items are those activities that pertain to two or more of the three hazards in the mitigation plan: flood, severe weather occasions and earthquakes. There are six short-term and three long-term multi-hazard action items described below.

SHORT TERM ACTIVITY – MULTI HAZARD #1: Integrate the goals and action items from the Baldwin Park Unified School District Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.

Ideas for Implementation: **Medium Priority**

- Partner with other organizations and agencies with similar goals to promote Building & Safety Codes that are more disaster resistant at the state level.

Coordinating Organization: BPUSD Hazard Mitigation Steering Committee
Time Line: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #2: Identify and pursue funding opportunities to develop and implement District mitigation activities.

Ideas for Implementation: **High Priority**

- Allocate District, county, and state resources and assistance to mitigation projects when possible; and

- Partner with other organizations and agencies in the City of Baldwin Park to identify grant programs and foundations that may support mitigation activities.

Coordinating Organization: BPUSD Administration/Business Services
Time Line: Ongoing

Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #3: Establish a formal role for the Baldwin Park Unified School District Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating District mitigation activities.

Ideas for Implementation: **High Priority**

- Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies.
- Oversee implementation of the mitigation plan.
- Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan.
- Monitor hazard mitigation implementation by school site through surveys and other reporting methods.
- Develop updates for the Natural Hazards Mitigation Action Plan when presented with new information.
- Conduct a full review of the Natural Hazards Mitigation Action Plan every five (5) years by evaluating mitigation successes, failures, and areas that were not addressed.
- Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

Coordinating Organization: Hazard Mitigation Steering Committee
Time Line: Ongoing
Plan Goals Addressed: Implementation
Constraints: Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #4: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in the Baldwin Park Unified School District.

Ideas for Implementation: **Medium Priority**

- Work with city government (City of Baldwin Park) to develop local Natural Hazards Mitigation Plans that are consistent with the goals and framework of their respective city plans.

- Identify all organizations within Baldwin Park Unified School District that have programs or interests in natural hazards mitigation.

Coordinating Organization: Hazard Mitigation Steering Committee
Time Line: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #5: Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.

Ideas for Implementation: **High Priority**

- Identify critical facilities at risk from natural hazards events.
- Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question.

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: May be budgetary limits that can prolong the length of the project

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SHORT TERM ACTIVITY – MULTI HAZARD #6: Improve internal facility non-structural resistance to damage and injury due to earthquakes. Non-structural components include furnishings, equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets, and shelves.

Ideas for Implementation: **High Priority**

- Maintain safe and clear exit ways to access buildings and provide secure evacuation routes in response to emergency situations and events.
- Reduce the potential for chemical spills, fires, and gas leaks.
- Secure all items to prevent movement due to seismic activity – **Refer to Appendix F – School Site Non-Structural Action Item List.**

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: Available employees to complete action items at all sites.

SHORT TERM ACTIVITY – MULTI HAZARD #7: Strengthen emergency services preparedness and response by linking with natural hazard mitigation programs, and enhancing community education throughout the District.

Ideas for Implementation: **Medium Priority**

- Encourage individual and family preparedness through public education projects such as safety fairs.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor maintenance of emergency transportation routes, alternate routes and potential future changes.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor the status of their respective infrastructures that could potentially impact the District, such as storm drain systems.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to identify available resources should any significant part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.
- Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts.
- Work with Community Planning Organizations (COP's) and other neighborhood groups to establish community response teams.
- Familiarize public officials of requirements regarding public assistance for disaster response.

Coordinating Organization:	BPUSD Administration/Business Service
Time Line:	Ongoing
Plan Goals Addressed:	Emergency Services
Constraints:	Limited to time available from District staff.

LONG TERM ACTIVITY – MULTI HAZARD – MH #1: Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Items

- Make the Baldwin Park Unified School District Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web site.

- Develop and complete a baseline survey to gather perceptions of private citizens, employees, and any interested party regarding natural hazard risks and identify mitigation needs. Repeat the survey in five years to monitor successes and failures of natural hazard mitigation programs.

- Education: Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District.

- Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Public Awareness, Protect Life and Property
Constraints:	Limited to time available from District staff

LONG TERM ACTIVITY – MULTI HAZARD – MH #2: Develop and implement disaster response training for all employees.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Item

- Provide training to all employees on the District's Standardized Emergency Management System Multi Hazard Plan.

- Provide training to update first aid and CPR skills for all employees.

- Provide training to employees to handle manageable situations, such as extinguishing small fires and search and rescue efforts.

- Prepare employees to operate school sites as a sheltering facility for displaced population.

- Exercise the response plan through tabletop and practical exercises.

Coordinating Organization:	District Administration
Time Line:	Ongoing
Plan Goals Addressed:	Education and awareness, protect life and property
Constraints:	Limited to available employee and staff time

LONG TERM ACTIVITY – MULTI HAZARD – MH #3: Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.

Ideas for Implementation: **Low Priority**

Multi Hazard Action Item

- Replace, repair and/or upgrade all utility systems identified in the Capital Improvement Plan.
- Replace, repair and/or upgrade all site drain systems identified in the Capital Improvement Plan.
- Remove and replace, or upgrade, any structures that do not meet seismic standards.
- Insure that all new construction meets or exceeds standards set by the State Office of Architects.
- Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	On going
Plan Goals Addressed:	Protect Life and Property
Constraints:	Lack of funding to complete all identified projects

Section 5
Plan Maintenance

The plan maintenance section of this document details the formal process that will ensure that the Baldwin Park Unified School District Natural Hazards Mitigation Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the District will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how Baldwin Park Unified School District intends to incorporate the mitigation strategies outlined in this plan into existing planning mechanisms such as Baldwin Park City's General Plan, District Capital Improvement Plans, and Building and Safety Codes.

Monitoring and Implementing the Plan

Plan Adoption

The Baldwin Park Unified School District Board of Education will be responsible for adopting the Baldwin Park Unified School District Natural Hazards Mitigation Plan. This governing body has the authority to promote sound public policy regarding natural hazards. Once the Plan has been adopted, the Deputy Superintendent Business Services or the District Superintendent will be responsible for submitting it to the State Hazard Mitigation Officer at The Governor's Office of Emergency Services and the Federal Emergency Management Agency (FEMA) for review. This review will address the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA, Baldwin Park Unified School District will gain eligibility for Hazard Mitigation Grant Program funds.

Coordinating Body

The Baldwin Park Unified School District Administration and Hazard Mitigation Steering Committee will be responsible for coordinating implementation of Plan action items and undertaking the formal review process.

The Hazard Mitigation Steering Committee will meet no less than quarterly. Meeting dates will be scheduled once the final Hazard Mitigation Steering Committee has been established. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan.

Convener

The Baldwin Park Unified School District Board of Education will adopt the Baldwin Park Unified School District Natural Hazard Mitigation Plan, and the Hazard Mitigation Steering Committee will take responsibility for Plan implementation. The __(need to appoint)__ will serve as a convener to facilitate the Hazard Mitigation Steering Committee meetings, and will assign tasks such as updating and presenting the Plan to the members of the Committee. Plan implementation and evaluation will be a shared responsibility among all of the Natural Hazard Steering Committee Members.

Implementation through Existing Programs

Baldwin Park Unified School District addresses statewide planning goals and legislative requirements through the City of Baldwin Park's General Plan, Department of State Architects, and City Building and Safety Codes. The natural Hazard Mitigation Plan provides a series of recommendations – many of which are closely related to the goals and objectives of existing planning programs. The Baldwin Park Unified School District will have the opportunity to implement recommended mitigation action items through existing programs and procedures.

The Baldwin Park Unified School District Maintenance & Operations Department is responsible for administering the Building & Safety Codes. In addition, the Maintenance & Operations Department will work with other agencies at the state level to review, develop and ensure Building & Safety Codes that are adequate to mitigate or present damage by natural hazards. This is to ensure that life-safety criteria are met for new construction.

Within six months of formal adoption of the mitigation plan, the recommendations listed above will be incorporated into the process of existing planning mechanisms throughout the District. The meetings of the Hazard Mitigation Steering Committee will provide an opportunity for committee members to report back on the progress made on the integration of mitigation planning elements, documents and procedures.

Economic Analysis of Mitigation Projects

FEMA's approaches to identify the costs and benefits associated with natural hazard mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis.

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later.

Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Hazard Mitigation Steering Committee may use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items. For other projects and funding sources, the Hazard Mitigation Steering Committee will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

Evaluating and Updating the Plan

Formal Review Process

The Baldwin Park Unified School District Natural Hazards Mitigation Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process includes a firm schedule and time line, and identifies the local agencies and organizations participating in plan evaluation. The convener or designee will be responsible for contacting the Hazard Mitigation Steering Committee members and organizing the annual meeting.

Committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan. The District will also work with the City of Baldwin Park to assist them with the development of their respective cities own hazard mitigation plan and to incorporate the requirements of our plan with there's. The Committee will review the goals and action items to determine their relevance to changing situations in the District and City, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The Committee will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data. The coordinating organizations responsible for the various action item will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

The convener will assign the duty of updating the plan to one or more of the Committee members. The designated committee members will have three months to make appropriate changes to the Plan before submitting it to the Committee members. Every five years the updated plan will be submitted to the State Hazard Mitigation Officer and the Federal emergency Management Agency for review.

Continued Public Involvement

Baldwin Park Unified School District is dedicated to involving the public directly in review and updates of the Hazard Mitigation Plan. The Hazard Mitigation Steering Committee members are responsible for the annual review and update of the plan.

The public will also have the opportunity to provide feedback about the Plan. Copies of the Plan will be kept at all District school sites and the Administrative Office. In addition, copies of the Plan and any proposed changes will be posted on the District website. This site will also contain an email address and phone number to which people can direct their comments and concerns.

A public hearing will also be held after each annual evaluation or when deemed necessary by the Hazard Mitigation Steering Committee. The meetings will provide the public a forum for which they can express its concerns, opinions, or ideas about the Plan.

Section 4
Multi-Hazard Goals and Action Items

This section provided information on the process used to develop goals and action items that pertain to the three natural hazards addressed in the mitigation plan. It also describes the framework that focuses the plan on developing successful mitigation strategies. The framework is made up of there parts: the Mission, Goals and Action Items.

Mission

The mission of the Baldwin Park Unified School District's Natural Hazards Mitigation Plan is to promote sound District policy designed to protect students, faculty and staff, infrastructure, school sites, critical support facilities, and the environment from natural hazards. This can be achieved by increasing awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the District towards building a safer and more sustainable District.

Goals

The plan goals describe the overall direction that Baldwin Park Unified School District can take to minimize the impacts of natural hazards. These goals are stepping-stones between the broad direction of the mission statement and the specific requirements that are outline in the action items.

Action Plan and Implementation Schedule

The action items are a listing of activities in which the District can be engaged to reduce risk. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that the District may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

A. Potential Mitigation Strategies

The next step is to review the existing mitigation strategies (Project Evaluation Worksheets), propose improvements to them, and identify additional potential strategies. A detailed list of mitigation strategies applicable to BPUSD can be seen on pages II-25 – II-28; II-34; and II-37. These potential mitigation strategies were organized into three categories according to the type of hazard event, and include: 1) earthquake; 2) flooding; and 3) severe weather. The brainstorming session resulted in the following list of actions that could be taken to mitigate future hazards, by hazard type:

1. Earthquake

    Minimize losses to existing and future BPUSD buildings and structures

    Reducing the potential for fatalities.

    Maintain safe and clear exit ways to access building and provide secure evacuation routes in time of emergency.

2. Flooding

    Ensure that areas susceptible to flooding on District property are addressed to reduce or eliminate the future hazard that exists.

    Inspect and lean all ground and roof drains, gutters, scuppers, down pipes, roof surfaces and runoff areas.

    Move all water sensitive materials and equipment to the highest practical level available.

3. Severe Weather

    Reduce the hazard of falling trees and tree limbs during high wind conditions.

    Perform regular assessments of all major trees and their health status throughout the District.

    Remove trees that are diseased or may have the potential to fall and are deemed hazardous to life and property.

B. Feasibility and Prioritization of Proposed Mitigation Strategies

The goal of each strategy is reduction or prevention of damage from a hazard event. In order to determine their effectiveness in accomplishing this goal, a set of criteria was applied to each proposed strategy. The STAPLEE method analyzes the Social, Technical, Administrative, Political, Legal, Economic and Environmental aspects of a project and is commonly used by public administration officials and planners for making planning decisions. The following questions were asked about the proposed mitigation strategies and discussed in each of the eight Project Evaluation Work Sheets contained in Appendix H.

- **Social:** Is the proposed strategy socially acceptable to the community? Review equity issues involved that would mean that one segment of the community is treated unfairly?

- **Technical:** Will the proposed strategy work? Will it create more problems than it solves?

- **Administrative:** Can the community implement the strategy? Is there someone to coordinate and lead the effort?
- **Political:** Is the strategy politically acceptable? Is there public support both to implement and to maintain the project?
- **Legal:** Is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity?
- **Economic:** What are the costs and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits?
- **Environmental:** How will the strategy impact the environment? Will the strategy need environmental regulatory approvals?

  **Each proposed mitigation strategy was evaluated and assigned a score (Good = 3, Average = 2, Poor = 1) based on the above criteria. An evaluation chart with total scores for each strategy can be found in each of the eight individual project evaluation worksheets.*

Mitigation Plan Goals and Public Participation

The Plan goals help to guide direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

Protect Life and Property

- Implement activities that assist in protecting lives by making our schools, support facilities, and other property more resistant to natural hazards.
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.
- Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.

- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Emergency Services

- Establish a policy to ensure mitigation projects for critical facilities, services, and infrastructure.

- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

- Coordinate and integrate natural hazard mitigation activities, where appropriate, with current District emergency operations plans and procedures.

Public Participation

- Public input during development of the mitigation plan assisted in creating plan goals. Meetings with the project Core Group and Steering Committee, served as methods to obtain input and identify priorities in developing goals for reducing risk and preventing loss from natural hazards in the Baldwin Park Unified School District.

Natural Hazard Mitigation Plan Action Items

The mitigation plan identifies short- and long-term action items developed through data collection and research, and the public participation process. Mitigation plan activities may be considered for funding through Federal and State grant programs, and when other funds are made available through the city. Action items address multi-hazard (MH) and hazard specific issues. To help ensure activity implementation, each action item includes information on the timeline and coordinating organizations. Upon implementation, the coordinating organizations may look to partner organizations for resources and technical assistance.

Coordinating Organization

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. For the Baldwin Park Unified School District, the Administrative staff in Business Services will be the main coordinating organization. Additional coordinating organizations may include local, city, or regional agencies that are capable of or responsible for implementing further activities and programs.

Time Line

Action items include both short- and long-term activities. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that city agencies may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five year (or more) to implement.

Ideas for Implementation

Each action item includes ideas for implementation and potential resources, which may include grant programs or human resources.

Plan Goals Addressed

The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins.

Constraints

Constraints may apply to some of the District's action items. These constraints unfortunately result from decreased or lack of state and federal funds, increased insurance costs, and a general poor health of the California economy.

Project Evaluation

The Hazard Mitigation Steering Committee has reviewed two documents that comprise the District's Capital Improvement Plan. The first document is an evaluation of each school site that includes all improvements necessary for mitigation purposes. The second document is the Implementation Plan that prioritizes each need for each site. The process of prioritizing was based on need and available funding. After review the Hazard Mitigation Steering Committee supported the Capital Improvement Plan that also addresses mitigation needs.

Multi-Hazard Action Items

Multi-hazard action items are those activities that pertain to two or more of the three hazards in the mitigation plan: flood, severe weather occasions and earthquakes. There are six short-term and three long-term multi-hazard action items described below.

SHORT TERM ACTIVITY – MULTI HAZARD #1: Integrate the goals and action items from the Baldwin Park Unified School District Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.

Ideas for Implementation: **Medium Priority**

- Partner with other organizations and agencies with similar goals to promote Building & Safety Codes that are more disaster resistant at the state level.

Coordinating Organization:	BPUSD Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #2: Identify and pursue funding opportunities to develop and implement District mitigation activities.

Ideas for Implementation: **High Priority**

- Allocate District, county, and state resources and assistance to mitigation projects when possible; and
- Partner with other organizations and agencies in the City of Baldwin Park to identify grant programs and foundations that may support mitigation activities.

Coordinating Organization:	BPUSD Administration/Business Services
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #3: Establish a formal role for the Baldwin Park Unified School District Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating District mitigation activities.

Ideas for Implementation: **High Priority**

- Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies.
- Oversee implementation of the mitigation plan.
- Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan.
- Monitor hazard mitigation implementation by school site through surveys and other reporting methods.

- Develop updates for the Natural Hazards Mitigation Action Plan when presented with new information.

- Conduct a full review of the Natural Hazards Mitigation Action Plan every five (5) years by evaluating mitigation successes, failures, and areas that were not addressed.

- Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Implementation
Constraints:	Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #4: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in the Baldwin Park Unified School District.

Ideas for Implementation: **Medium Priority**

- Work with city government (City of Baldwin Park) to develop local Natural Hazards Mitigation Plans that are consistent with the goals and framework of their respective city plans.

- Identify all organizations within Baldwin Park Unified School District that have programs or interests in natural hazards mitigation.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #5: Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.

Ideas for Implementation: **High Priority**

- Identify critical facilities at risk from natural hazards events.

- Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question.

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: May be budgetary limits that can prolong the length of the project

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SHORT TERM ACTIVITY – MULTI HAZARD #6: Improve internal facility non-structural resistance to damage and injury due to earthquakes. Non-structural components include furnishings, equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets, and shelves.

Ideas for Implementation: **High Priority**

- Maintain safe and clear exit ways to access buildings and provide secure evacuation routes in response to emergency situations and events.
- Reduce the potential for chemical spills, fires, and gas leaks.
- Secure all items to prevent movement due to seismic activity – **Refer to Appendix F – School Site Non-Structural Action Item List.**

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: Available employees to complete action items at all sites.

SHORT TERM ACTIVITY – MULTI HAZARD #7: Strengthen emergency services preparedness and response by linking with natural hazard mitigation programs, and enhancing community education throughout the District.

Ideas for Implementation: **Medium Priority**

- Encourage individual and family preparedness through public education projects such as safety fairs.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor maintenance of emergency transportation routes, alternate routes and potential future changes.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor the status of their respective infrastructures that could potentially impact the District, such as storm drain systems.

- Coordinate with the City of Baldwin Park and neighboring jurisdictions to identify available resources should any significant part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.

- Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts.

- Work with Community Planning Organizations (COP's) and other neighborhood groups to establish community response teams.

- Familiarize public officials of requirements regarding public assistance for disaster response.

Coordinating Organization:	BPUSD Administration/Business Service
Time Line:	Ongoing
Plan Goals Addressed:	Emergency Services
Constraints:	Limited to time available from District staff.

LONG TERM ACTIVITY – MULTI HAZARD – MH #1: Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Items

- Make the Baldwin Park Unified School District Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web site.

- Develop and complete a baseline survey to gather perceptions of private citizens, employees, and any interested party regarding natural hazard risks and identify mitigation needs. Repeat the survey in five years to monitor successes and failures of natural hazard mitigation programs.

- Education: Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District.

- Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Public Awareness, Protect Life and Property
Constraints:	Limited to time available from District staff

LONG TERM ACTIVITY – MULTI HAZARD – MH #2: Develop and implement disaster response training for all employees.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Item

- Provide training to all employees on the District's Standardized Emergency Management System Multi Hazard Plan.
- Provide training to update first aid and CPR skills for all employees.
- Provide training to employees to handle manageable situations, such as extinguishing small fires and search and rescue efforts.
- Prepare employees to operate school sites as a sheltering facility for displaced population.
- Exercise the response plan through tabletop and practical exercises.

Coordinating Organization:	District Administration
Time Line:	Ongoing
Plan Goals Addressed:	Education and awareness, protect life and property
Constraints:	Limited to available employee and staff time

LONG TERM ACTIVITY – MULTI HAZARD – MH #3: Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.

Ideas for Implementation: **Low Priority**

Multi Hazard Action Item

- Replace, repair and/or upgrade all utility systems identified in the Capital Improvement Plan.
- Replace, repair and/or upgrade all site drain systems identified in the Capital Improvement Plan.
- Remove and replace, or upgrade, any structures that do not meet seismic standards.
- Insure that all new construction meets or exceeds standards set by the State Office of Architects.

- Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	On going
Plan Goals Addressed:	Protect Life and Property
Constraints:	Lack of funding to complete all identified projects

Section 4
Multi-Hazard Goals and Action Items

This section provided information on the process used to develop goals and action items that pertain to the three natural hazards addressed in the mitigation plan. It also describes the framework that focuses the plan on developing successful mitigation strategies. The framework is made up of there parts: the Mission, Goals and Action Items.

Mission

The mission of the Baldwin Park Unified School District's Natural Hazards Mitigation Plan is to promote sound District policy designed to protect students, faculty and staff, infrastructure, school sites, critical support facilities, and the environment from natural hazards. This can be achieved by increasing awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the District towards building a safer and more sustainable District.

Goals

The plan goals describe the overall direction that Baldwin Park Unified School District can take to minimize the impacts of natural hazards. These goals are stepping-stones between the broad direction of the mission statement and the specific requirements that are outline in the action items.

Action Plan and Implementation Schedule

The action items are a listing of activities in which the District can be engaged to reduce risk. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that the District may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

A. Potential Mitigation Strategies

The next step is to review the existing mitigation strategies (Project Evaluation Worksheets), propose improvements to them, and identify additional potential strategies. A detailed list of mitigation strategies applicable to BPUSD can be seen on pages II-25 – II-28; II-34; and II-37. These potential mitigation strategies were organized into three categories according to the type of hazard event, and include: 1) earthquake; 2) flooding; and 3) severe weather. The brainstorming session resulted in the following list of actions that could be taken to mitigate future hazards, by hazard type:

1. Earthquake

   - Minimize losses to existing and future BPUSD buildings and structures
   - Reducing the potential for fatalities.
   - Maintain safe and clear exit ways to access building and provide secure evacuation routes in time of emergency.

2. Flooding

   - Ensure that areas susceptible to flooding on District property are addressed to reduce or eliminate the future hazard that exists.
   - Inspect and lean all ground and roof drains, gutters, scuppers, down pipes, roof surfaces and runoff areas.
   - Move all water sensitive materials and equipment to the highest practical level available.

3. Severe Weather

   - Reduce the hazard of falling trees and tree limbs during high wind conditions.
   - Perform regular assessments of all major trees and their health status throughout the District.
   - Remove trees that are diseased or may have the potential to fall and are deemed hazardous to life and property.

B. Feasibility and Prioritization of Proposed Mitigation Strategies

The goal of each strategy is reduction or prevention of damage from a hazard event. In order to determine their effectiveness in accomplishing this goal, a set of criteria was applied to each proposed strategy. The STAPLEE method analyzes the Social, Technical, Administrative, Political, Legal, Economic and Environmental aspects of a project and is commonly used by public administration officials and planners for making planning decisions. The following questions were asked about the proposed mitigation strategies and discussed in each of the eight Project Evaluation Work Sheets contained in Appendix H.

- **Social:** Is the proposed strategy socially acceptable to the community? Review equity issues involved that would mean that one segment of the community is treated unfairly?
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Mitigation Plan Goals and Public Participation

The Plan goals help to guide direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

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- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.

- Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.

- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Emergency Services

- Establish a policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with current District emergency operations plans and procedures.

Public Participation

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Project Evaluation

The Hazard Mitigation Steering Committee has reviewed two documents that comprise the District's Capital Improvement Plan. The first document is an evaluation of each school site that includes all improvements necessary for mitigation purposes. The second document is the Implementation Plan that prioritizes each need for each site. The process of prioritizing was based on need and available funding. After review the Hazard Mitigation Steering Committee supported the Capital Improvement Plan that also addresses mitigation needs.

Multi-Hazard Action Items

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SHORT TERM ACTIVITY – MULTI HAZARD #1: Integrate the goals and action items from the Baldwin Park Unified School District Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.

Ideas for Implementation: **Medium Priority**

- Partner with other organizations and agencies with similar goals to promote Building & Safety Codes that are more disaster resistant at the state level.

Coordinating Organization:	BPUSD Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #2: Identify and pursue funding opportunities to develop and implement District mitigation activities.

Ideas for Implementation: **High Priority**

- Allocate District, county, and state resources and assistance to mitigation projects when possible; and

- Partner with other organizations and agencies in the City of Baldwin Park to identify grant programs and foundations that may support mitigation activities.

Coordinating Organization:	BPUSD Administration/Business Services
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #3: Establish a formal role for the Baldwin Park Unified School District Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating District mitigation activities.

Ideas for Implementation: **High Priority**

- Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies.

- Oversee implementation of the mitigation plan.

- Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan.

- Monitor hazard mitigation implementation by school site through surveys and other reporting methods.

- Develop updates for the Natural Hazards Mitigation Action Plan when presented with new information.

- Conduct a full review of the Natural Hazards Mitigation Action Plan every five (5) years by evaluating mitigation successes, failures, and areas that were not addressed.

- Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Implementation
Constraints:	Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #4: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in the Baldwin Park Unified School District.

Ideas for Implementation: **Medium Priority**

- Work with city government (City of Baldwin Park) to develop local Natural Hazards Mitigation Plans that are consistent with the goals and framework of their respective city plans.

- Identify all organizations within Baldwin Park Unified School District that have programs or interests in natural hazards mitigation.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #5: Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.

Ideas for Implementation: **High Priority**

- Identify critical facilities at risk from natural hazards events.

- Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question.

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: May be budgetary limits that can prolong the length of the project

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SHORT TERM ACTIVITY – MULTI HAZARD #6: Improve internal facility non-structural resistance to damage and injury due to earthquakes. Non-structural components include furnishings, equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets, and shelves.

Ideas for Implementation: **High Priority**

- Maintain safe and clear exit ways to access buildings and provide secure evacuation routes in response to emergency situations and events.
- Reduce the potential for chemical spills, fires, and gas leaks.
- Secure all items to prevent movement due to seismic activity – **Refer to Appendix F – School Site Non-Structural Action Item List.**

Coordinating Organization: BPUSD Maintenance & Operations Department
Time Line: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: Available employees to complete action items at all sites.

SHORT TERM ACTIVITY – MULTI HAZARD #7: Strengthen emergency services preparedness and response by linking with natural hazard mitigation programs, and enhancing community education throughout the District.

Ideas for Implementation: **Medium Priority**

- Encourage individual and family preparedness through public education projects such as safety fairs.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor maintenance of emergency transportation routes, alternate routes and potential future changes.
- Coordinate with the City of Baldwin Park and neighboring jurisdictions to monitor the status of their respective infrastructures that could potentially impact the District, such as storm drain systems.

- Coordinate with the City of Baldwin Park and neighboring jurisdictions to identify available resources should any significant part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.

- Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts.

- Work with Community Planning Organizations (COP's) and other neighborhood groups to establish community response teams.

- Familiarize public officials of requirements regarding public assistance for disaster response.

Coordinating Organization:	BPUSD Administration/Business Service
Time Line:	Ongoing
Plan Goals Addressed:	Emergency Services
Constraints:	Limited to time available from District staff.

LONG TERM ACTIVITY – MULTI HAZARD – MH #1: Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Items

- Make the Baldwin Park Unified School District Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web site.

- Develop and complete a baseline survey to gather perceptions of private citizens, employees, and any interested party regarding natural hazard risks and identify mitigation needs. Repeat the survey in five years to monitor successes and failures of natural hazard mitigation programs.

- Education: Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District.

- Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	Ongoing
Plan Goals Addressed:	Public Awareness, Protect Life and Property
Constraints:	Limited to time available from District staff

LONG TERM ACTIVITY – MULTI HAZARD – MH #2: Develop and implement disaster response training for all employees.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Item

- Provide training to all employees on the District's Standardized Emergency Management System Multi Hazard Plan.
- Provide training to update first aid and CPR skills for all employees.
- Provide training to employees to handle manageable situations, such as extinguishing small fires and search and rescue efforts.
- Prepare employees to operate school sites as a sheltering facility for displaced population.
- Exercise the response plan through tabletop and practical exercises.

Coordinating Organization:	District Administration
Time Line:	Ongoing
Plan Goals Addressed:	Education and awareness, protect life and property
Constraints:	Limited to available employee and staff time

LONG TERM ACTIVITY – MULTI HAZARD – MH #3: Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.

Ideas for Implementation: **Low Priority**

Multi Hazard Action Item

- Replace, repair and/or upgrade all utility systems identified in the Capital Improvement Plan.
- Replace, repair and/or upgrade all site drain systems identified in the Capital Improvement Plan.
- Remove and replace, or upgrade, any structures that do not meet seismic standards.
- Insure that all new construction meets or exceeds standards set by the State Office of Architects.

- Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.

Coordinating Organization:	Hazard Mitigation Steering Committee
Time Line:	On going
Plan Goals Addressed:	Protect Life and Property
Constraints:	Lack of funding to complete all identified projects

Baldwin Park
Unified School District

Local Hazard
Mitigation Plan

September 2004

Prepared by:
Ralph Andersen & Associates
A Tradition of Excellence Since 1972

Baldwin Park Unified School District

DATE: October 12, 2004

TO: Board of Education

FROM: Mark M. Skvarna, Superintendent

SUBJECT: Adoption of the Federal Disaster Mitigation Act of 2000 Plan

Submitted by: Mark M. Skvarna, Superintendent

Prepared by: Stephen R. Bayne, Captain, Baldwin Park School Police Department

Background

The Baldwin Park Unified School District has prepared a Federal Disaster Mitigation Act (D.M.A.) Plan to ensure effective pre-disaster steps be taken for the maximum protection of the district's population and structures, identifies potential hazards to the district, and provides strategies and goals to minimize their impact on the district. The Board previously approved Resolution #19 on April 6, 2004 in support of the D.M.A. 2K project.

Fiscal Impact

There is no fiscal impact to adopt this plan.

Recommendation

Mark M. Skvarna recommends approval of the Adoption of the Federal Disaster Mitigation Act of 2000 Plan.

BALDWIN PARK UNIFIED SCHOOL DISTRICT

DATE April 6, 2004

TO: Board of Education

FROM Mark M. Skvarna, Superintendent

RE: Resolution #19, In Support of the District Implementation of a Disaster Preparedness Plan in Compliance with the Federal Disaster Mitigation Act of 2000

Submitted and Prepared by: Amelia Ayala, Director, Business, Risk Management and Benefits

BACKGROUND

In order to comply with the Federal Disaster Mitigation Act (DMA) of 2000, the district is implementing a disaster preparedness plan. This plan will ensure funding from the Federal Government in case of an emergency or disaster. The district will work with Ralph Anderson and Associates and Shauna Clark, Consultant, in order to implement the plan.

FISCAL IMPACT

The total cost to the district for implementation of the plan will be $25,000. Ralph Anderson and Associates are aware that this amount will be paid out of next year's fiscal budget. Ms. Clark will be applying for mitigation grants to offset the cost.

RECOMMENDATION

Amelia Ayala recommends approval of Resolution #19, In Support of District Implementation of a Disaster Preparedness Plan in Compliance with the Federal Disaster Mitigation Act of 2000.

ROLL CALL VOTE

Moved by Seconded by Vote

Roll Call Vote:

Mr. Bejarano Ms. Rubio
Mr. Corona Mr. White
Dr. Dominguez

Ayes _____ Noes _____ Abstain _____ Absent

4/6/04 Action G-

BALDWIN PARK UNIFIED SCHOOL DISTRICT

Resolution #19, 2003-2004

In Support of District Implementation of a Disaster Preparedness Plan in Compliance with the Federal Disaster Mitigation Act of 2000

WHEREAS, on October 30, 2000, the Disaster Mitigation Act of 2000 (the "DMA") was signed into law, amending provisions of the Robert T. Stafford Disaster Relief Act of 1988; and

WHEREAS, the DMA reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide; and

WHEREAS, the DMA focuses specifically on planning, and recognizes the significance of hazard mitigation planning at the local level, and the necessity for effective coordination between State and local entities to promote an integrated, comprehensive approach to mitigation planning; and

WHEREAS, the DMA requires local agencies like the Baldwin Park Unified School District (the "District") to develop a mitigation plan that includes a detailed District profile; identifies specific threats and vulnerabilities within the District; and sets forth specific mitigating measures for address such threats and vulnerabilities; and

WHEREAS, the District's DMA plan is to be reviewed annually by the District and every five years by federal authorities; and

WHEREAS, the DMA further requires detailed documentation of all actions, meetings, studies, and directives undertaken in the furtherance of the District's DMA plan; and

WHEREAS, the DMA includes new criteria for local mitigation planning, including the development and submittal of mitigation plans as a condition to receiving Hazard Mitigation Grant Program funds; and

WHEREAS, the safety of the District's students, faculty, and staff is of paramount importance to the Board of Education; and

WHEREAS, the Baldwin Park Unified School District's Board of Education, Baldwin Park, California, **DOES HEREBY FIND, DETERMINE AND RESOLVE AS FOLLOWS:**

SECTION 1 The Board expresses its full support for, and willingness to devote appropriate resources to the DMA program and the adoption of a DMA plan for the District.

4/6/04 Action G-2

SECTION 2 The Board supports the active participation of all interested agencies, departments, community groups, and the public with respect to the DMA program.

SECTION 3 The Board shall hold public hearings, as necessary, to review and receive input on completed phases for the development of a DMA plan as well as further hearings for final review and adoption of such a plan.

SECTION 4 The Secretary shall certify to the passage and adoption of this resolution and thereupon the same shall take effect and be in full force.

PASSED, AND ADOPTED this 6th day of April, 2004, by the Governing Board of Baldwin Park Unified School District of Los Angeles County, California.

Roll Call Vote Ayes 5 Noes 0 Abstain 0 Absent 0

Anthony J. Bejarano, President	April 6, 2004 Date
Sergio Corona, Clerk/Vice President	April 6, 2004 Date
Marco Dominguez, Ph.D, Member	April 6, 2004 Date
Blanca Estela Rubio, Member	April 6, 2004 Date
Jack B. White. Member	April 6, 2004 Date

4/6/04 Action G-3

Part II – Specific Natural Hazards

Section I
Specific Natural Hazards

Identification and Prioritizing Natural Hazards

The process used to identify and prioritize threats to the District was to have the Core Group research the history of events, their potential threat, and overall impact to the District. The information gathered was presented to the Steering Committee for review, input, and recommendations.

The Core Group and Steering Committee reviewed a general list of natural threats. Both the Group and Committee agreed on three potential natural threats to the District. These threats are earthquakes, flooding, and severe weather conditions.

The Core Group and Steering Committee used the criteria of frequency, intensity, and resulting injury and damage generated by a single event. The following list of hazards is in order of threat priority:

1. **Earthquake**

   Earthquakes do not have the frequency rate of other natural events. However, history shows the results of an event of significant magnitude is responsible for the loss of life, injuries, destruction of property, and a threat to the environment. Earthquakes can trigger other events, such as the loss of containment for a hazardous material, train derailment, and igniting fires. Geological studies place the District in a liquefaction zone. The faults and fault zones near and around the District have the potential to generate an earthquake event of significant magnitude. Earthquakes can cause not only injury and property destruction but can financially impact the District by loss of Average Daily Attendance (ADA) funding. Recovery and resumption from a major event can be lengthy and costly.

2. **Floods**

   The Group and Committee considered flooding as the next significant natural hazard. Flooding has a history dating back to the 1850's however, a wide range of county projects were completed dating from the 1930's to the mid 1990's. These projects include several dams, a flood control channel system, and extensive spreading grounds. Dam failure is considered remote, overflowing levees is considered remote, and the only significant threat would be urban flooding. During the last El Nino condition, that resulted in some flooding, the District was not impacted. The District has to rely on the City to prepare and mitigate by having an adequate storm drain system as population increases.

3. Severe Weather Occasions

The Southern California, and District, climate is generally mild and is characterized as Mediterranean. The Group and Committee reviewed history which includes erratic, unpredictable, and unexpected shifts in weather patterns. With the exception of high winds during Santa Ana conditions and heavy rains during an El Nino condition there has not been a significant event that has impacted the District.

Non-Threatening Hazards

The Core Group and Steering Committee reviewed the following natural hazards and found that they do not represent a threat to the District.

- Avalanche – No impact. The District is not located in a mountainous region.
- Coastal Erosion – No impact. The District is not located near a coastal region.
- Coastal Storms – No impact. The District is not located near a coastal region.
- Dam Failure – No impact. Although the Santa Fe Dam is close to the District the probability of failure and overflow is extremely remote.
- Drought – No impact. There is no history in the District and local water districts consider supplies adequate for the next 10 years.
- Expansive Soils – No impact. This is not a threat to the District with the exception of a seismic that causes liquefaction – covered in earthquake hazard.
- Landslides – No impact. The District is not located near mountains and the only landslide potential due to seismic activity is minimal and located several miles southeast of the District.
- Tsunami – No impact. The District is not located in or near a coastal region.
- Volcano – No impact. The general area in and around the District has no history of, or future potential for, volcanic activity.
- Wildfire – No impact. The District is not near any urban/rural interface.

Section II
Earthquakes

Why Are Earthquakes a Threat to the Baldwin Park Unified School District?

The most recent significant earthquake event affecting Southern California was the January 17th 1994 Northridge Earthquake. At 4:31 a.m. on Monday, January 17, a moderate but very damaging earthquake with a magnitude of 6.7 struck the San Fernando Valley. In the following days and weeks, thousands of aftershocks occurred, causing additional damage to affected structures.

Fifty-seven (57) people were killed and more than 1,500 people seriously injured. For days afterward, thousands of homes and businesses were without electricity; tens of thousands had no gas; and nearly 50,000 had little or no water. Approximately 15,000 structures were moderately to severely damaged, which left thousands of people temporarily homeless. Sixty-six thousand five hundred (66,500) buildings were inspected. Nearly 4,000 were severely damaged and over 11,000 were moderately damaged. Several collapsed bridges and overpasses created commuter havoc on the freeway system. Extensive damage was caused by ground shaking, but earthquake triggered liquefaction and dozens of fires also caused additional severe damage. This extremely strong ground motion in large portions of Los Angeles County resulted in record economic losses.

However, the earthquake occurred early in the morning on a holiday. This circumstance considerably reduced the potential effects. Many collapsed buildings were unoccupied, and most businesses were not yet open. The direct and indirect economic losses ran into the ten's of billions of dollars.

Historical and geological records show that California has a long history of seismic events. Southern California is probably best known for the San Andreas Fault, a 400 mile long fault running from the Mexican border to a point offshore, west of San Francisco. "Geologic studies show that over the past 1,400 to 1,500 years large earthquakes have occurred at about 130 year intervals on the southern San Andreas fault. As the last large earthquake on the southern San Andreas occurred in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades."[1]

But San Andreas is only one of dozens of known earthquake faults that criss-cross Southern California. Some of the better known faults include the Newport-Inglewood, Whittier, Chats-

[1] http://pubs.usgs.gov/gip/earthq3/when.html

worth, Elsinore, Hollywood, Los Alamitos, and Palos Verdes faults. Beyond the known faults, there are a potentially large number of "blind" faults that underlie the surface of Southern California. Once such blind fault was involved in the Whittier Narrows earthquake in October 1987.

Although the most famous of the faults, the San Andreas, is capable of producing an earthquake with a magnitude of 8+ on the Richter scale, some of the "lesser" faults have the potential to inflict greater damage on the urban core of the Los Angeles Basin. Seismologists believe that a 6.0 earthquake on the Newport-Inglewood would result in far more death and destruction than a "great" quake on the San Andreas, because the San Andreas is relatively remote from the urban centers of Southern California.

For decades, partnerships have flourished between the USGS, Cal Tech, the California Geological Survey and universities to share research and educational efforts with Californians. Tremendous earthquake mapping and mitigation efforts have been made in California in the past two decades, and public awareness has risen remarkably during this time. Major federal, state, and local government agencies and private organizations support earthquake risk reduction, and have made significant contributions in reducing the adverse impacts of earthquakes. Despite the progress, the majority of California communities remain unprepared because there is a general risk of understanding regarding earthquake hazards among Californians.

Table 2-1
Earthquake Events in the Southern California Region

1769	Los Angeles Basin	1916	Tejon Pass Region
1800	San Diego Region	1918	San Jacinto
1812	Wrightwood	1923	San Bernardino Region
1812	Santa Barbara Channel	1925	Santa Barbara
1827	Los Angeles Region	1933	Long Beach
1855	Los Angeles Region	1941	Carpenteria
1857	Great Fort Tejon Earthquake	1952	Kern County
1858	San Bernardino Region	1954	W. of Wheeler Ridge
1862	San Diego Region	1971	San Fernando
1892	San Jacinto or Elsinore Fault	1973	Point Magu
1893	Pico Canyon	1986	North Palm Springs
1894	Lytle Creek Region	1987	Whittier Narrows
1894	E. of San Diego	1992	Landers
1899	Lytle Creek Region	1992	Big Bear
1899	San Jacinto and Hemet	1994	Northridge
1907	San Bernardino Region	1999	Hector Mine
1910	Glen Ivy Hot Springs		

Source:
http://geology.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fpasadena.wr.usgs.gov%2Finfo%2Fcahist_egs.html

To better understand the earthquake hazard, the scientific community has looked at historical records and accelerated research on those faults that are the sources of the earthquakes occurring in the Southern California region. Historical earthquake records can generally be divided into records of the pre-instrumental period and the instrumental period. In the absence of instrumentation, the detection of earthquakes is based on observations and felt reports, and is dependent upon population density and distribution. Since California was sparsely populated in the 1800s, the detection of pre-instrumental earthquakes is relatively difficult. However, two very large earthquakes, the Fort Tejon in 1857 (7.9) and the Owens Valley (7.6) are evidence of the tremendously damaging potential of earthquakes in Southern California. In more recent times two 7.3 earthquakes struck Southern California, in Kern County (1952) and Landers (1992). The damage from these four large earthquakes was limited because they occurred in areas which were sparsely populated at the time they happened. The seismic risk is much more severe today than in the past because the population at risk is in the millions, rather than a few hundred or a few thousand persons.

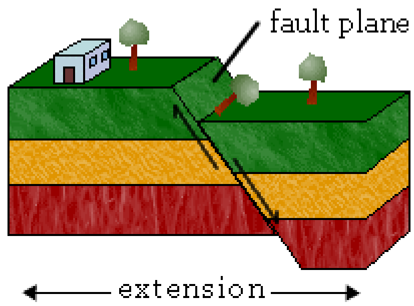
History of Earthquake Events in Southern California

Since seismologist started recording and measuring earthquakes, there have been tens of thousands of recorded earthquakes in Southern California, most with a magnitude below three. No community in Southern California is beyond the reach of a damaging earthquake. Table 2-1 describes the historical earthquake events that have affected Southern California.

Table 2-2
Causes and Characteristics of Earthquakes in Southern California

Earthquake Faults

In a normal fault, the block above the fault moves down relative to the block below the fault. This fault motion is caused by tensional forces and results in extension. (other names: normal-slip fault, tensional fault or gravity fault)



Strike-Slip

In a strike-slip fault, the movement of blocks along a fault is horizontal. If the block on the far side of the fault moves to the left, as shown to the right, the fault is called left-lateral. If the block on the far side moves to the right, the fault is called right-lateral. The fault motion of a strike-slip fault is caused by shearing forces. (other names: transcurrent fault, lateral fault, tear fault, or wrench fault)

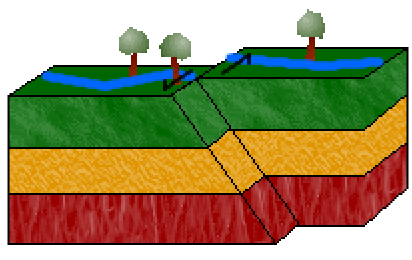
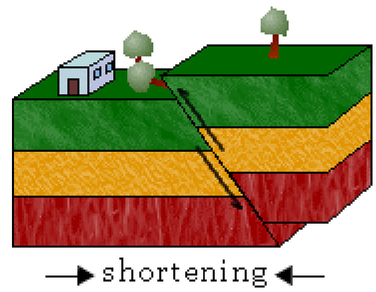


Table 2-2
Causes and Characteristics of Earthquakes in Southern California

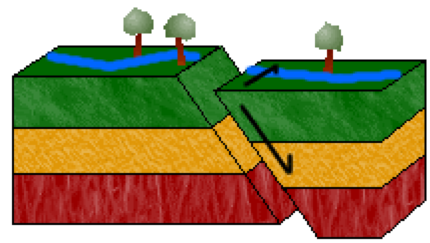
Dip-Slip

In a reverse (dip-slip) fault, the block above the fault moves up relative to the block below the fault. This fault motion is caused by compressional forces and results in shortening. A reverse fault is called a thrust fault if the dip of the fault plane is small. (other names: thrust fault, reverse-slip fault or compressional fault)



Oblique-Slip Fault

Oblique-slip faulting suggests both dip-slip faulting and strike-slip faulting. It is caused by a combination of shearing and tension of compressional forces.

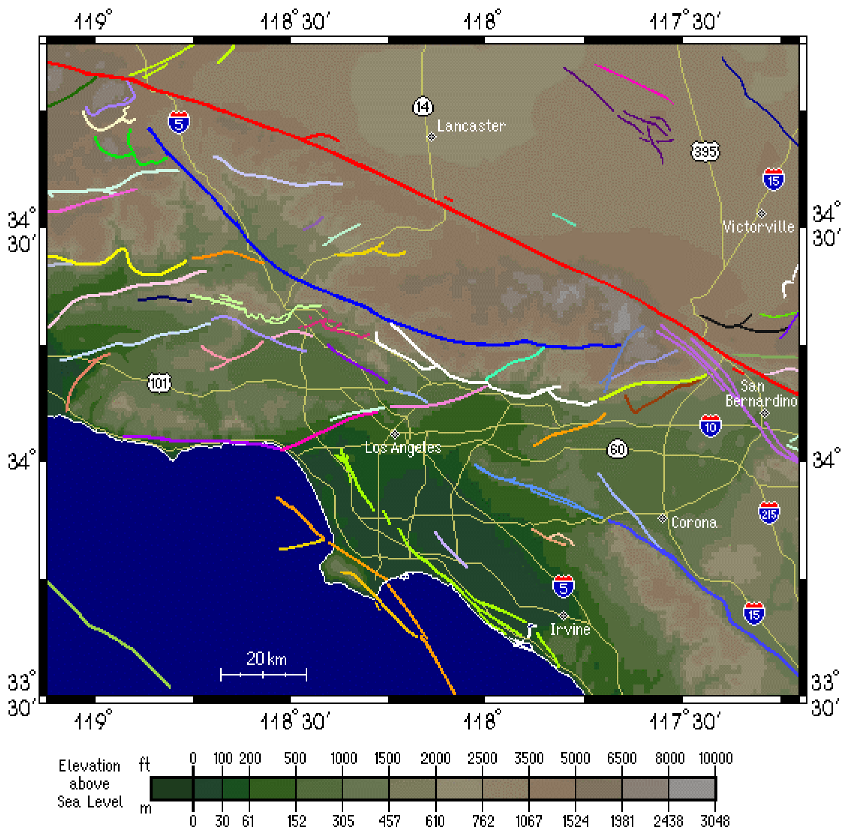


Faults of Southern California

Los Angeles Region

This map (on the next page) covers most of the Los Angeles metropolitan area. Within this map area, most every kind of fault type can be found. Indeed, since these maps show only surface traces of faults, some potentially damaging faults – namely, blind thrust faults, like the one which caused the Northridge Earthquake of 1994 – are not shown. Some of the faults which are shown may never rupture again. This map is not meant to be used as a zoning guide, nor for risk assessment. For these purposes, please see the documents prepared by the California Geological Survey.

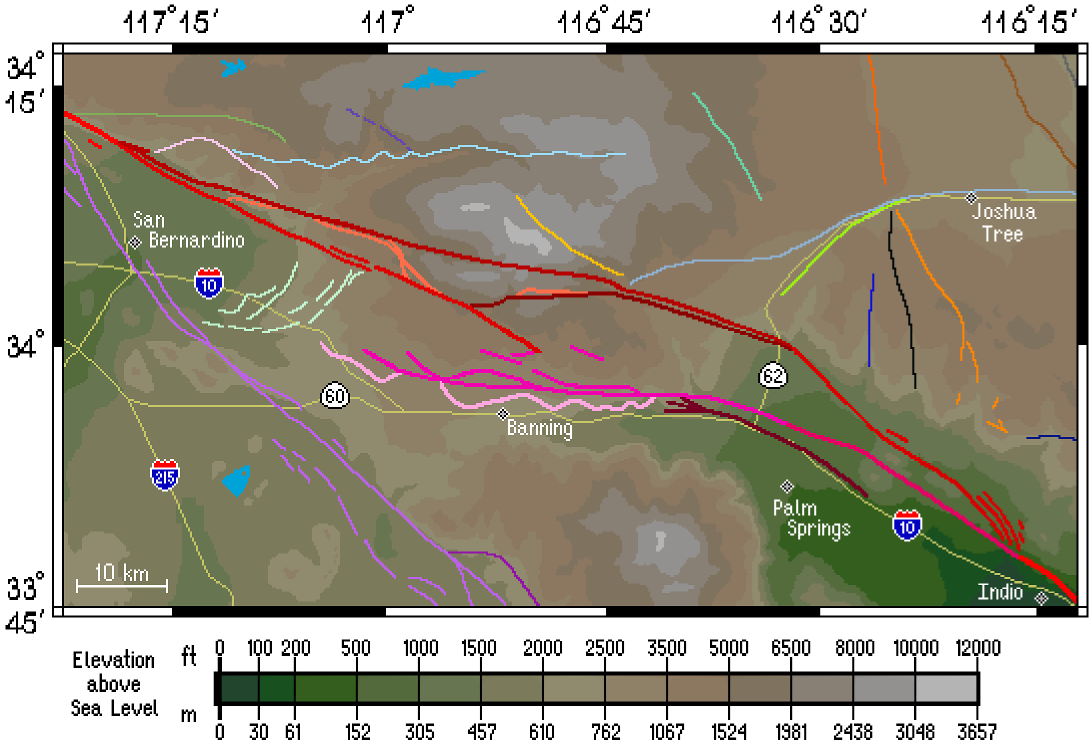
<u>San Andreas Fault Zone</u>
Type of Fault: Right-Lateral Strike-Slip
Length: 1200 km. 550 km south from Parkfield; 650km northward
Nearby Community: Parkfield, Frazier Park, Palmdale, Wrightwood, San Bernardino, Banning, Indio
Last Major Rupture: January 9, 1857 (Mojave segment); April 18, 1906 (Northern segment)
Slip Rate: about 20 to 35 mm per year
Interval Between Major Ruptures: average of about 140 years on the Mojave segment; recurrence interval varies greatly – from under 20 years (at Parkfield only) to over 300 years.
Probable Magnitudes: M_W6.8 – 8.0



San Andreas Fault Zone – San Gorgonia Pass Area:

The San Gorgonio Pass are is fairly complex, geologically speaking. Here the San Andreas fault interacts with other faults (most notably the San Jacinto fault zone and the Pinto Mountain fault) and thereby becomes somewhat fractured, over the distance extending from just north of San Bernardino to just north of Indio, some 110 kilometers (70 miles). Because this deformation has been going on for well over a million years, ancient and inactive strands of the San Andreas fault can be found here. Other faults in this area are have been “reawakened” recently after being dormant for hundreds of thousands of years. There is even evidence to suggest that there is no active, continuous main trace of the San Andreas fault going all the way through the pass, not even at depth – implying that the San Andreas fault may currently be in the process of creating a new fault path through this area! This could also mean that a single continuous rupture from Cajon Pass to the Salton Sea (a stretch of the San Andreas that has not ruptured in historical times) is unlikely to occur. Fault rupture mechanics are still not well understood, however, and the discontinuity could prove to have little effect on tempering a major earthquake on this southern stretch of the San Andreas fault zone.

Below is a map of the San Gorgonio Pass area, similar to the other clickable maps within these pages; clicking on the survey of the trace of a fault will take you to a file detailing some of the features of that fault. Cities and towns are shown as diamonds, lakes are shown in light blue, and highways are shown in yellow. It should be noted that due to the complexity of this area, many researchers have used different nomenclature for the local faults, and placed the dividing lines between certain named fault segments in varying places. This naturally makes it difficult to decide upon one standard for labeling maps such as this. When possible, these differences will be noted within the fault files, but keep in mind that the system used here represents only one of many ways of characterizing this intriguing and complex geologic region.



Dr. Kerry Sieh of Cal Tech has investigated the San Andreas fault at Pallett Creek. "The record at Pallett Creek shows that rupture has recurred about every 130 years, on average, over the past 1,500 years. But actual intervals have varied greatly, from less than 50 years to more than 300. The physical cause of such irregular recurrence remains unknown."[2] Damage from a great quake on the San Andreas would be widespread throughout Southern California.

The following details are presented on faults in the local geographic area:

Whittier Fault
Type of Faulting: right-lateral strike-slip with some reverse slip
Length: about 40 km
Nearby Communities: Yorba Linda, Hacienda Heights, Whittier
Most Recent Surface Rupture: Holocene
Slip Rate: between 2.5 and 3.0 mm/year
Interval Between Major Ruptures: unknown
Probable Magnitudes: M_W6.0 – 7.2
Other Notes: The Whittier fault dips toward the northeast

San Jose Fault
Type of Faulting: left-lateral strike-slip; minor reverse component possible
Length: about 18 km

[2] http://www.gps.caltech.edu/~sieh/home.html

Nearby Communities: Claremont, La Verne, Pomona
Last Significant Quake: Feb. 28, 1990; M_I5.4. No surface rupture
Most Recent Surface Rupture: Late Quaternary
Slip Rate: between 0.2 and 2.0 mm/year
Interval Between Major Ruptures: unknown
Probable Magnitudes: M_L6.0 – 6.5
Other Notes: The San Jose fault dips steeply to the north.

Newport-Inglewood Fault Zone
Type of Faulting: Right-lateral; local reverse slip associated with fault steps.
Length: 75 km
Nearest Communities: Culver City, Inglewood, Gardena, Compton, Signal Hill, Long Beach, Seal Beach, Huntington Beach, Newport Beach, Costa Mesa
Most Recent Major Rupture: March 10, 1933, M_W6.4 (but no surface rupture)
Slip Rate: 0.6 mm/year
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W6.0 – 7.4
Other Notes: Surface trace is discontinuous in the Los Angeles Basin, but the fault zone can easily be noted there by the existence of a chain of low hills extending from Culver City to Signal Hill. South of Signal Hill, it roughly parallels the coastline until just south of Newport Bay, where it heads offshore, and becomes the Newport-Inglewood – Rose Canyon fault zone.

Los Alamitos Fault
Type of Faulting: Uncertain
Length: 11 km
Nearby Communities: Los Alamitos, Lakewood, Bellflower
Most Recent Surface Rupture: Late Quaternary
Other Notes: Age uncertain; fault indistinct. May be part of a larger fault system – the Compton-Los Alamitos fault.

Santa Monica Fault
Type of Faulting: Left-reverse
Length: 24 km
Nearby Communities: Pacific Palisades, Westwood, Beverly Hills, Santa Monica
Most Recent Surface Rupture: Late Quaternary
Slip Rate: Between 0.27 and 0.39 mm/year
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W6.0 – 7.0 (?)
Other Notes: This is a north-dipping fault. Its slip rate may be greatest at is western end.

Raymond Fault
Type of Faulting: Left-lateral; only minor reverse slip
Length: 26 km
Nearest Communities: San Marino, Arcadia, South Pasadena
Most Recent Major Rupture: Holocene
Slip Rate: Between 0.10 and 0.22 mm/year
Interval Between Major Ruptures: Roughly 4,500 years (?)

Probable Magnitudes: M_W6.0 – 7.0

This fault dips at about 75 degrees to the north. There is evidence that at least eight surface-rupturing events have occurred along this fault in the last 36,000 years.

The exact nature of the slip along the Raymond fault has been a subject of debate for quite some time. The fault produces a very obvious south-facing scarp along much of its length, and this has made many favor reverse-slip as the predominant sense of fault motion. However, there are also places along this scarp where left-lateral stream offsets of several hundred meters can be seen.

The matter will not be conclusively resolved until the Raymond fault ruptures at the surface, but some new light was shed on the debate in late 1988, when the Pasadena Earthquake occurred. Apparently located on the Raymond fault, the motion of this quake was predominately left-lateral, with a reverse component only about 1/15th the size of the lateral component. Curiously enough, this corresponds very well with a scarp height of about 30 meters (reverse slip) versus a left-lateral stream offset of about 400 meters (lateral slip), which are found along the scarp of the Raymond fault south of Pasadena.

If the Raymond fault is indeed primarily a left-lateral fault, it could be responsible for transferring slip southward from the Sierra Madre fault zone to other fault systems.

<u>Sierra Madre Fault Zone</u>

Type of Faulting: Reverse

Length: the zone is about 55 km long; total length of main fault segments is about 75 km, with each segment measuring roughly 15 km long

Nearby Communities: Sunland, Altadena, Sierra Madre, Monrovia, Duarte, Glendora

Most Recent Surface Rupture: Holocene

Slip Rate: between 00.36 and 4 mm/year

Interval Between Surface Ruptures: several thousand years (?)

Probable Magnitudes: M_W6.0 – 7.0 (?)

Other Notes: This fault zone dips to the north. It was not the fault responsible for the 1991 Sierra Madre earthquake.

The Sierra Madre fault zone is often divided into five main segments, labeled with the letters A through E, to more easily characterize this fairly complex system. The map to the right shows these segments.

These five divisions, while simpler than the entire fault zone, should not be thought of as individual faults, however – some of these segments are themselves complex systems of parallel and branching faults. It has been suggested that differing fault geometries in this zone keep each lettered segment separate during rupture events – thus, neighboring segments should not rupture simultaneously. Others, however, suggest that the fault zone may rupture both in single-segment and multi-segment breaks.

The most recent surface ruptures are seen on the B and D segments. The lease active segment, at least in surface appearance, is the A segment, also know as the Vasquez Creek fault, which runs between the San Gabriel fault, which runs between the San Gabriel fault and the intersection of the B and C segments of the Sierra Madre fault zone. At the junction of the C and D segments, the Clamshell – Sawpit Canyon fault splays off from the fault zone, toward the northeast (shown in sea green on the map above). It was this fault, not the Sierra Madre fault zone itself, that ruptured to produce the Sierra Madre earthquake of 1991 (named for the nearby community of Sierra Madre).

One of the strands that make up Segment D is known as the Duarte fault, because of its location near that community. Segment E represents the easternmost part of this fault zone, and at is eastern end, it meets up with several other faults in a complex zone northwest of the town of Upland, near the epicenter of the 1990 Upland earthquake. The general trend of the Sierra Madre fault zone continues eastward from this point along the base of the San Gabriel Mountains, but this eastern continuation is known as the Cucamonga fault zone. The Cucamonga fault zone seems to be more active (has a higher slip rate) than the Sierra Madre fault zone.

While rupture on the Sierra Madre fault zone (theoretically) could be limited to one segment at a time, it has recently been suggested that a large event on the San Andreas fault to the north (like that of 1857) could cause simultaneous rupture on reverse faults south of the San Gabriel Mountains – the Sierra Madre fault zone being a prime example of such. Whether this could rupture multiple Sierra Madre fault zone segments simultaneously is unknown.

San Gabriel Fault Zone

Type of Faulting: Primarily right-lateral strike-slip
Length: Roughly 140 km
Nearby Communities: Castaic, Saugus, Sunland
Most Recent Surface Rupture: Late Quaternary west of intersection with the Sierra Madre fault zone; Quaternary east of that intersection; Holocene only between Saugus and Castaic
Slip Rate: 1 mm/year to 5 mm/year
Interval Between Major Ruptures: Unknown
Other Notes: Slip rate and recurrence interval probably vary significantly along the length of the San Gabriel fault zone. The western half is probably much more active than the eastern half. Dip is generally steep and to the north.

Clamshell-Sawpit Canyon Fault

Type of Faulting: Reverse
Length: 18 km
Nearest Communities: Sierra Madre, Monrovia
Most Recent Surface Rupture: Late Quaternary
Other Notes: This fault dips to the north at about 40 (at the surface) to 50 (at depth) degrees.

The Sierra Madre earthquake of 1991 probably originated on the Clamshell – Sawpit Canyon fault. Though a sizable earthquake, the depth of this quake prevented the rupture from reaching the surface.

Cucamonga Fault Zone

Type of Faulting: Thrust
Length: About 30 km
Nearest Communities: Claremont, Upland, Cucamonga
Slip Rate: Between 5 and 14 mm/year
Interval Between Major Ruptures: Estimated at roughly 600-700 years
Probable Magnitudes: M_W6.0 – 7.0
Most Recent Rupture: Very recent Holocene

Other Notes: Typical ground rupture per major event estimated at 2 meters. Slip rate (and thus recurrence interval) is somewhat disputed. If fastest slip rate is assumed, surface rupture interval may be as short as 150-200 years. This zone of faulting dips to the north.

The Cucamonga fault zone is part of the same fault system, marking the southern boundary of the San Gabriel Mountains, as the Sierra Madre fault zone. Sometimes it is included as part of the Sierra Madre fault zone, as is the San Fernando fault zone far to the west; here we refer to each as separate fault zones, as it is not clear that rupture may progress from one to another. Perhaps the best way to rectify the difference in nomenclature is to refer to the Cucamonga fault zone, Sierra Madre fault zone, and the San Fernando fault zone as the Sierra Madre fault system.

San Fernando Fault Zone
Type of Faulting: Thrust
Length: 17 km
Nearest Communities: San Fernando, Sunland
Last Major Rupture: February 9, 1971, M_W6.6
Slip Rate: 5 mm/year (?)
Interval Between Major Ruptures: Roughly 200 years
Probable Magnitudes: M_W6.0 – 6.8
Other Notes: Dip is to the north. The slip rate is not well known, but trenching studies indicate recurrence interval as between 100 and 300 years.

Santa Susana Fault Zone
Type of Faulting: Thrust
Length: 38 km
Nearby Communities: Piru, Sylmar, San Fernando
Most Recent Surface Rupture: Late Quaternary, except for a short segment which ruptured slightly during the 1971 San Fernando earthquake
Slip Rate: Between 5 and 7 mm/year
Interval Between Major Ruptures: Uncertain
Probable Magnitudes: M_W6.5 – 7.3
Other Notes: The faults in this complex zone primarily dip to the north.

Palos Verdes Fault Zone
Type of Faulting: Right-reverse (?)
Length: Roughly 80 km
Nearby Communities: San Pedro, Palos Verdes Estates, Torrance, Redondo Beach
Most Recent Surface Rupture: Holocene, offshore; Late Quaternary, onshore
Slip Rate: Between 0.1 and 3.0 mm/year
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W6.0 – 7.0 (or greater?); fault geometries may allow only partial rupture at any one time.
Other Notes: Has two main branches (see below). Continues southward as the Palos Verdes – Coronado Bank fault zone.

Palos Verdes-Coronado Bank Fault Zone
Type of Faulting: Right-Lateral and Normal Faulting (?)
Length: At least 90 km; with the Palos Verdes – Coronado Bank Fault Zone: at least 180 km
Nearest Community: San Diego (20 km offshore)
Most Recent Surface Rupture: Holocene
Slip Rate: Roughly 2.0 mm/year
Other Notes: Essentially continuous with the Palos Verdes fault zone. Rupture extending from one named section across to another section might be possible.

Cabrillo Fault
Type of Faulting: Right-normal (?)
Length: 20 km
Nearby Communities: Rancho Palos Verdes, Rolling Hills Estates, San Pedro
Most Recent Surface Rupture: Holocene, offshore; Late Quaternary, onshore
Slip Rate: Uncertain
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W6.0 – 6.8
Other Notes: Dips to the north.

Redondo Canyon Fault
Type of Faulting: Right-reverse (?)
Length: 11 km
Nearby Communities: Palos Verdes Estates, Redondo Beach
Most Recent Surface Rupture: Holocene
Slip Rate: Uncertain
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W5.8 – 6.5

Malibu Coast Fault Zone
Type of Faulting: Reverse
Length: 34 km; has several parallel strands
Nearest Communities: Malibu, pacific Palisades
Most Recent Surface Rupture: Holocene, in part; otherwise Late Quaternary
Slip Rate: Roughly 0.3 mm/year
Interval Between Major Ruptures: Uncertain
Other Notes: This is a north-dipping fault. The slip rate may be higher at its eastern end, where it meets the Santa Monica fault, and develops left-reverse motion.

Chino Fault
Type of Faulting: Right-reverse
Length: 21 km
Nearest Communities: Corona, Chino
Most Recent Surface Rupture: Late Quaternary
Slip Rate: About 1.0 mm/year
Interval Between Major Ruptures; Unknown
Probable Magnitudes: M_W6.0 – 7.0
Other Notes: The dip of this fault is to the southwest.

Los Alamitos Fault
Type of Faulting: Uncertain
Length: 11 km
Nearby Communities: Los Alamitos, Lakewood, Bellflower
Most Recent Surface Rupture: Late Quaternary
Other Notes: Age uncertain; fault indistinct. May be part of a larger fault system – the Compton-Los Alamitos fault.

Red Hill Fault (Also Etiwanda Avenue Fault)
Type of Faulting: Thrust
Length: About 25 km
Nearest Communities: Etiwanda, Alta Loma, Upland
Slip Rate: Uncertain
Interval Between Major Ruptures: Unknown
Probable Magnitudes: M_W6.0 – 7.0
Most Recent Surface Rupture: Holocene at eastern end; otherwise, Lat Quaternary
Other Notes: This fault dips to the north. The eastern 9 kilometers of the Red Hill-Etiwanda Avenue fault is often considered to be a part of the Cucamonga fault zone, as it shows surface rupture more similar to that of the Cucamonga fault zone than to that of the rest of the Red Hill fault.

Hollywood Fault
Type of Faulting: Left-reverse
Length: 15 km
Nearby Communities: Hollywood, Beverly Hills, Glendale
Most Recent Surface Rupture: Holocene
Slip Rate: Between 0.33 mm/year and 0.75 mm/year
Interval Between Major Ruptures: 1600 years (?)
Probable Magnitudes: M_W5.8 – 6.5, alone; larger if rupture is simultaneous with an adjacent fault
Other Notes: Could be considered a westward extension of the Raymond fault. Roughly parallel to the Santa Monica fault.

San Antonio Fault
Type of Faulting: Left-lateral strike-slip
Length: 20 km
Nearby Communities: Mt. Baldy, Alta Loma
Most Recent Surface Rupture: Late Quaternary
Other Notes: The small branch to the west near the southern end of the San Antonio fault is known as the Evey Canyon fault. The San Antonio fault probably cuts and offsets the Stoddard Canyon fault.

Stoddard Canyon Fault
Type of Faulting: Left-lateral strike-slip
Length: 18 km
Nearby Communities: Alta Loma, Lytle Creek
Most Recent Surface Rupture: Quaternary

Other Notes: Also called the South San Antonio fault, this north-dipping fault is one of the many in a complex system of branching faults north of the Cucamonga fault zone, none of which appear to have been active in Holocene times. The largest of these is the Icehouse Canyon fault, which branches off to the north of the Stoddard Canyon fault. The Stoddard Canyon fault is probably cut and offset by the San Antonio fault to the west, but the intersection of these two faults is buried, and the exact relation is unclear.

San Jacinto Fault Zone
Type of Faulting: Right-lateral strike-slip; minor right-reverse
Length: 210 km, including coyote Creek fault
Nearby Communities: Lytle Creek, San Bernardino, Loma Linda, San Jacinto, Hemet, Anza, Borrego Springs, Ocotillo Wells
Most Recent Surface Rupture: Within the last few centuries; April 9, 1968, M_W6.5 on Coyote Creek segment
Slip Rate: Typically between 7 and 17 mm/year
Interval Between Surface Ruptures: Between 100 and 300 years, per segment
Probable Magnitudes: M_W6.5 – 7.5

Earthquake Related Hazards

Ground shaking, landslides, liquefaction, and amplification are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

Earthquake Induced Landslides

Earthquake induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes.

Liquefaction

Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. Many communities in Southern California are built on ancient river bottoms and have sandy soil. In some cases this ground may be subject to liquefaction, depending on the depth of the water table.

Amplification

Soils and soft sedimentary rocks near the earth's surface can modify ground shaking caused by earthquakes. One of these modifications is amplification. Amplification increases the magnitude of the seismic waves generated by the earthquake. The amount of amplification is influenced by the thickness of geologic materials and their physical properties. Buildings and structures built on soft and unconsolidated soils can face greater risk.[3] Amplification can also occur in areas deep sediment filled basins and on ridge tops.

Earthquake Hazard Assessment

Hazard Identification

In California, many agencies are focused on seismic safety issues: the State's Seismic Safety Commission, the Applied Technology Council, Governor's Office of Emergency Services, United States Geological Survey, Cal Tec, the California Geological Survey as well as a number of universities and private foundations.

These organizations, in partnership with other state and federal agencies, have undertaken a rigorous program in California to identify seismic hazards and risks including active fault identification, bedrock shaking, tsunami inundation zones, ground motion amplification, liquefaction, and earthquake induced landslides. Seismic hazard maps have been published and are available for many communities in California through the State Division of Mines and Geology.

In California, each earthquake is followed by revisions and improvements in the Building Codes. The 1933 Long Beach resulted in the Field Act, affecting school construction. The 1971 Sylmar earthquake brought another set of increased structural standards. Similar re-evaluations occurred after the 1989 Loma Prieta and 1994 Northridge earthquakes. These code changes have resulted in stronger and more earthquake resistant structures.

The Alquist-Priolog Earthquake Fault Zoning Act was passed in 1974 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard.[4]

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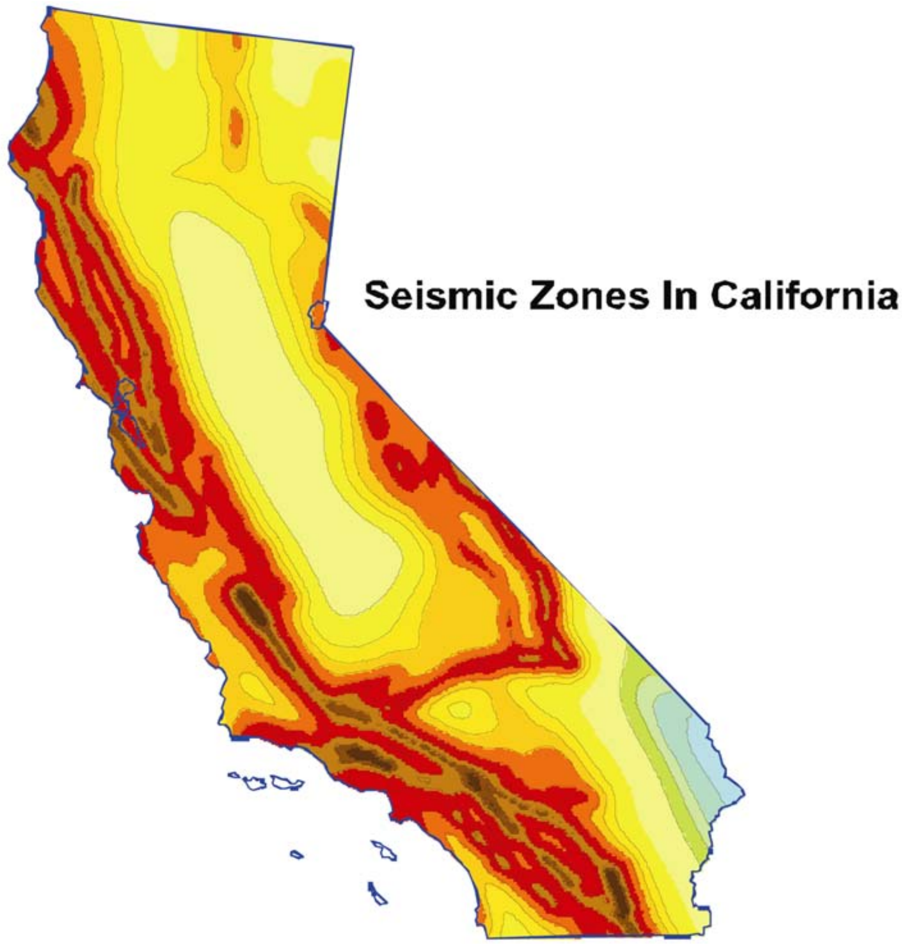
[3] Planning for Natural Hazards: The California Technical Resource Guide, Department of Land Conservation and Development (July 2000)

[4] http://www.data.scec.org/fault_index/newping.html

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides.[5] The State Department of Conservation operates the Seismic Mapping Program for California. Extensive information is available at their website: http://gmw.consrv.ca.gov/shmp/index.htm.



Darker Shaded Areas indicate Greater Potential Shaking

Source: USGS Website

Vulnerability Assessment

The effects of earthquakes span a large area, and large earthquakes occurring in many parts of the Southern California region would probably be felt throughout the region. However, the degree to which the earthquakes are felt, and the damages associated with them may vary. At risk

[5] http://pubs.usgs.gov/gip/earthq3/when.html

from earthquake damage are large stocks of old buildings and bridges; many high tech and hazardous materials facilities; extensive sewer, water and natural gas pipelines; earth dams; petroleum pipelines; and other critical facilities and private property located in the county. The relative or secondary earthquake hazards, which are liquefaction, ground shaking, amplification, and earthquake-induced landslides, can be just as devastating as the earthquake.

The California Geological Survey has identified areas most vulnerable to liquefaction. Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. Map 6 identifies areas (shaded in Green) that have soils vulnerable to liquefaction.

Risk Analysis

Risk analysis is the third phase of a hazard assessment. Risk analysis involves estimating the damage and cost likely to be experienced in a geographic area over a period of time.[6] Factors included in assessing earthquake risk include population and property distribution in the hazard area, the frequency of earthquake events, landslide susceptibility, buildings, infrastructure, and disaster preparedness of the region. This type of analysis can generate estimates of the damages to the region due to an earthquake vent in a specific location. FEMA's software program, HAZUS, uses mathematical formulas and information about building stock, local geology and the location and size of potential earthquakes, economic data, and other information to estimate losses from a potential earthquake.[7] The HAZUS software is available from FEMA at no cost.

For greater Southern California there are multiple worst case scenarios, depending on which fault might rupture, and which communities are in proximity to the fault. But damage will not necessarily be limited to immediately adjoining communities. Depending on the hypocenter of the earthquake, seismic waves may be transmitted through the ground to unsuspecting communities. In the Northridge 1994 earthquake, Santa Monica suffered extensive damage, even though there was a range of mountains between it and the origin of the earthquake.

Damages from a large earthquake almost anywhere in Southern California are likely to run into the billions of dollars. Although building codes are some of the most stringent in the world, ten's of thousands of older existing buildings were built under much less rigid codes. California has laws affecting unreinforced masonry buildings (URM's) and although many building owners have retrofitted their buildings, hundreds of pre-1933 building still have not been brought up to current standards.

Non-structural bracing of equipment and contents is often the most cost-effective type of seismic mitigation. Inexpensive bracing and anchoring may be the most cost effective way to protect ex-

[6] http://www.gps.caltech.edu/~sieh/home.html

[7] Planning for Natural Hazards: The California Technical Resource Guide, Department of Land Conservation and Development (July 2000)

pensive equipment. Non-structural bracing of equipment and furnishings will also reduce the chance of injury for the occupants of a building.

Community Earthquake Issues

What is susceptible to earthquakes?

Earthquake damage occurs because humans have built structures that cannot withstand severe shaking. Buildings, airports, schools, and lifelines (highways and utility lines) suffer damage in earthquakes and can cause death or injury to humans. The welfare of homes, major businesses, and public infrastructure is very important. Addressing the reliability of buildings, critical facilities, and infrastructure, and understanding the potential costs to government, businesses, and individuals as a result of an earthquake, are challenges faced by the city.

Dams

There are a total of 103 dams in Los Angeles County, owned by 23 agencies or organizations, ranging from the Federal Government to Home Owner Associations.[8] These dams hold billions of gallons of water in reservoirs. Releases of water form the major reservoirs are designed to protect Southern California from flood waters and to store domestic water. Seismic activity can compromise the dam structures, and the resultant flooding could cause catastrophic flooding. Following the 1971 Sylmar earthquake the Lower Van Norman Dam showed signs of structural compromise, and tens of thousands of persons had to be evacuated until the dam could be drained. The dam has never been refilled. The Santa Fe Dam is only dam that would impact the District. The probability of dam failure is considered highly unlikely.

Buildings

The built environment is susceptible to damage from earthquakes. Buildings that collapse can trap and bury people. Lives are at risk and the cost to clean up the damages is great. In most California communities, including the Baldwin Park Unified School District, many buildings were built before 1993 when building codes were not as strict. In addition, retrofitting is not required except under certain conditions which can be expensive. Therefore, the number of buildings at risk remains high. The California Seismic Safety Commission makes annual reports on the progress of the retrofitting of unreinforced masonry buildings.

Infrastructure and Communication

Residents in the Community of Baldwin Park commute frequently by automobiles, and public transportation such as buses and light rail. An earthquake can greatly damage bridges and roads, hampering emergency response efforts and the normal movement of people and goods. Damaged

[8] http://www.consrv.ca.gov/CGS/rghm/ap/

infrastructure strongly affects the economy of the community because it disconnects people from work, school, food supply, and leisure activities, and separates businesses from their customers and suppliers.

Bridge Damage

Even modern bridges can sustain damage during earthquakes, leaving them unsafe for use. Some bridges have failed completely due to strong ground motion. Bridges are a vital transportation link with even minor damages making some areas inaccessible. Because bridges vary in size, materials used, location and design, any given earthquake will affect them differently. Bridges built before the mid-1970's have a significantly higher risk of suffering structural damage during a moderate to large earthquake compared to those built after 1980 when design improvements were made.

Much of the interstate highway system was built in the mid to late 1960's. The bridges in the City of Baldwin Park are state, county or privately owned (including railroad bridges). Cal Trans has retrofitted most bridges on the freeway systems; however, there are still some county maintained bridges that are not retrofitted. The FHWA requires that bridges on the National Bridge Inventory be inspected every two years. CalTrans checks when the bridges are inspected because they administer the Federal funds for bridge projects.

Damage to Lifelines

Lifelines are the connections between communities and outside services. They include water and gas lines, transportation systems, electric delivery systems and communication networks. Ground shaking and amplification can cause pipes to break open, power lines to fall, roads and railways to crack or move, and radio and telephone communication to cease. Disruption to transportation makes it especially difficult to bring in supplies or services. Lifelines need to be usable after earthquakes to allow for rescue, recovery, and rebuilding efforts and to relay important information to the public.

Disruption of Critical Services

Critical facilities include police stations, fire stations, hospitals, shelters, and other facilities that provide important services to the community. These facilities and their services need to be functional after an earthquake event.

Businesses

Seismic activity can cause great loss to businesses, both large-scale corporations and small retail shops. When a company is forced to stop production for a day, the economic loss can be tremendous, especially when its market is at a national or global level. Seismic activity can create economic loss that presents a burden to large and small shop owners who may have difficulty recovering from their losses.

Forty percent of businesses do not reopen after a disaster and another twenty-five percent fail within one year according to the Federal Emergency Management Agency (FEMA). Similar statistics from the United States Small Business Administration indicate that over ninety percent of businesses fail within two years after being struck by a disaster.[9]

Individual Preparedness

Because the potential for earthquake occurrences and earthquake related property damage is relatively high in the Community of Baldwin Park increasing individual preparedness is a significant need. Strapping down heavy furniture, water heaters, and expensive personal property, as well as being earthquake insured, and anchoring buildings to foundations are just a few steps individuals can take to prepare for an earthquake.

Death and Injury

Death and injury can occur both inside and outside of buildings due to collapsed buildings, falling equipment, furniture, debris, and structural materials. Downed power lines and broken water and gas lines can also endanger human life.

Fire

Downed power lines or broken gas mains can trigger fires. When fire stations suffer building or lifeline damage, quick response to extinguish fires is less likely. Furthermore, major incidents will demand a larger share of resources, and initially smaller fires and problems will receive little or insufficient resources in the initial hours after a major earthquake event. Loss of electricity may cause a loss of water pressure in some communities, further hampering fire fighting ability.

Existing Mitigation Activities

Existing mitigation activities include current mitigation programs and activities that are being implemented by county, regional, state, or federal agencies or organizations.

City of Baldwin Park Codes

Implementation of earthquake mitigation policy most often takes place at the local government level. The City of Baldwin Park Department of Building and Safety enforces building codes pertaining to earthquake hazards.

The City of Baldwin Park Planning Department enforces the zoning and land use regulations relating to earthquake hazards.

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[9] Ibid

Generally, these codes seek to discourage development in areas that could be prone to flooding, landslide, wildfire and/or seismic hazards; and where development is permitted, that the applicable construction standards are met. Developers in hazard-prone areas may be required to retain a qualified professional engineer to evaluate level of risk on the site and recommend appropriate mitigation measures.

California Earthquake Mitigation Legislation

California is painfully aware of the threats it faces from earthquakes. Dating back to the 19th Century, Californians have been killed, injured, and lost property as a result of earthquakes. As the State's population continues to grow, and urban areas become even more densely built up, the risk will continue to increase. For decades the Legislature has passed laws to strengthen the built environment and protect the citizens. Table 2-3 provides a sampling of some of the 200 plus laws in the State's codes.

Table 2-3
Partial List of the Over 200 California Laws on Earthquake Safety

Government Code Section 8870-8870.95	Creates Seismic Safety Commission
Government Code Section 8876.1-8876.10	Established the California Center for Earthquake Engineering Research
Public Resources Code Section 2800-2804.6	Authorized a prototype earthquake prediction system along the central San Andreas fault near the City of Parkfield.
Public Resources Code Section 2810-2815	Continued the Southern California Earthquake Preparedness Project and the Bay Area Regional Earthquake Preparedness Project.
Health and Safety Code Section 16100-16110	The Seismic Safety Commission and State Architect, will develop a state policy on acceptable levels of earthquake risk for new and existing state-owned buildings.
Government Code Section 8871-8871.5	Established the California Earthquake Hazards Reduction Act of 1986.
Health and Safety Code Section 130000-130025	Defined earthquake performance standards for hospitals.
Public Resources Code Section 2805-2808	Established the California Earthquake Education Project.
Government Code Section 8899.10-8899.16	Established the Earthquake Research Evaluation Conference.
Public Resources Code Section 2621-2630 2621	Established the Alquist-Priolo Earthquake Fault Zoning Act.
Government Code Section 8878.50-8878.52 8878.50	Created the Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990.
Education Code Section 35295-35297 35295	Established emergency procedure systems in kindergarten through grade 12 in all the public or private schools.
Health and Safety Code Section 19160-19169	Established standards for seismic retrofitting of unreinforced masonry buildings.
Health and Safety Code Section 1596.80-1596.879	Required all child day care facilities to include an Earthquake Preparedness Checklist as an attachment to their disaster plan.
Source: http://www.leginfo.ca.gov/calaw.html	

Earthquake Education

Earthquake research and education activities are conducted at several major universities in the Southern California region, including Cal Tech, USC, UCLA, UCSD, and UCI. The local clearinghouse for earthquake information is the Southern California Earthquake Center located at the University of Southern California, Los Angeles, California 90089, telephone (213) 740-5843, fax (213) 740-0011, e-mail SCEinfo@usc.edu, website http://www.scec.org. The Southern California Earthquake Center (SCED) is a community of scientists and specialists who actively coordinate research on earthquake hazards at nine core institutions, and communicate earthquake information to the public. SCEC is a National Science Foundation (NSF) Science and Technology Center and is co-funded by the United States Geological Survey (USGS).

In addition, Los Angeles County along with other Southern California counties, sponsors the Emergency Survival Program (ESP), an educational program for learning how to prepare for earthquakes and other disasters. Many school districts have very active emergency preparedness programs that include earthquake drills and periodic disaster response team exercises.

Earthquake Mitigation Action Items

The earthquake mitigation action items provide guidance on suggesting specific activities that the Baldwin Park Unified School District can undertake to reduce risk and prevent loss from earthquake events. Each action item is followed by ideas for implementation, which can be used by the Steering Committee and District Administration in pursuing strategies for implementation.

Mitigation Goal #1

Minimize losses to existing and future Baldwin Park Unified School District buildings and structures.

Objective

Improve internal facility resistance to damage from earthquakes. The Baldwin Park Unified School District has identified the following potential earthquake hazards associated with non-structural components of school buildings. Non-structural components include furnishings and equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets and shelves. Securing these components and building contents will improve safety at our school sites by:

- Reducing the potential for fatalities and injuries;
- Helping to maintain safe and clear exit ways to access buildings and provide secure evacuation routes in times of emergencies;
- Reduce the potential for chemical spills, fires and gas leaks; and

- Improving the probability of using our school facilities as a shelter following an earth-quake.

Mitigation Goal #2

Educate District faculty, staff and student understanding and commitment to Hazard Mitigation and Disaster Preparedness

Objective

Utilize the District's Safety and Disaster Preparedness Committees.

Actions for Implementation

- Coordinate training activities, drills and safety in-services at the school sites to address Emergency response.
- Develop newsletters or bulletins to inform staff and students about the latest information on Hazard Mitigation and Disaster Preparedness in the District.

Objective

Provide new curriculum for teachers to use to integrate "Hazard Safety" into regular academic lesson plans in math, science, social studies, and language arts.

Actions for Implementation

- Explore using the American Red Cross Community Disaster Education curriculum titled "Masters of Disasters" to educate students in the classroom on natural hazards like floods and earthquakes.
- Explore using the American Red Cross Community Disaster Educaiton curriculum title "Together We Prepare" to teach preparedness at home.

Objective

Utilize student assemblies as avenues for informing students on hazard Mitigation and Disaster Preparedness.

Actions for Implementation

- Provide dedicated time during student assemblies to present information on natural hazards and how students can prepare and protect themselves and their families.

- Utilize the Los Angeles Fire Department to conduct fire and earthquake safety talks to students during special assemblies.

Objective

Develop alternative means to educate the community on Hazard Mitigation and Disaster Preparedness in which the Baldwin Park Unified School District serves.

Actions for Implementation

- Utilize the District's website to provide updated activities and infomraiton regarding the Districjt's Hazard Mitigation and Disaster Preparedness plans.
- Updates will be done on a quarterly basis or whenever new informaiton becomes available.

Objective

Assess the readiness of the District to survive a disaster.

Actions for Implementation

- Keep a copy of the school's Disaster Response Plan, with current site maps, in the principal's office at each school site. In addition, mainain one master copy of each site plan at the District Administration office.
- Continue to provide training for all District staff that have been assigned emergency response duties per the District Disaster Response Plan.
- Continue with monthly fire drills for staff and students.
- Continue with earthquake drills for staff and students.
- Conduct District-wide disaster drills that train the staff and students on various contingencies and response activities such as, evacuation, traffic control and search and rescue.

Mitigation Goal #3

Improve coordination of planning with local municipalities and support agencies

Objective

Share all plans related to Disaster Response.

Actions for Implementation

- Provide the City of Baldwin Park with current Emergency Response and Hazard Mitigation plans.

Objective

Deepen the District's commitment to local communities.

Actions for Implementation

- Include plans for sheltering-in-place or evacuation by local Sheriff's Department, and the Los Angeles County Fire Department.

- Provide updated school maps of all District Facilities to these departments.

Objective

Understand what assistance may be available from local public agencies in preventing or limiting water damage to school facilities.

Actions for Implementation

- Have the District facilitate a meeting with the City of Baldwin Park to look at what capital improvement plans and stormwater management ordinances or amendments may have been developed that impact District facilities.

Section III
Flooding

The Los Angeles River Watershed (see Map 4) covers a land area of over 2,135 square kilometers (834 square miles) from the eastern portions of Santa Monica Mountains, and Simi Hills, and Santa Susana Mountains to the San Gabriel Mountains in the west. The watershed encompasses and is shaped by the path of the Los Angeles River, which flows from its headwaters in the mountains eastward to the northern corner of Griffith Park where the channel turns southward through the Glendale Narrows before it flows across the coastal plain and into San Pedro Bay near Long Beach. The Los Angeles River Watershed has diverse patterns of land use. The upper portion of the watershed, 920 square kilometers (approximately 360 square miles), is covered by forest or open space, while the remaining watershed, 1,215 square kilometers (approximately 474 square miles), is highly developed with commercial, industrial, or residential uses.

There are eight major tributaries to the Los Angeles River as it flows from its headwaters to the Pacific Ocean. The major tributaries of the Los Angels River include Burbank Western Channel, Pacoima Wash., Tujunga Wash, and Verdugo Wash in the San Fernando Valley; and the Arroyo Seco, Compton Creek, and Rio Hondo south of the Glendale Narrows. The Los Angeles River Watershed has 22 lakes within its boundaries including Devil Gates Dam, Hansen Basin, Lopez Dam, Pacoima Dam, and Sepulveda Basin.

In addition, there are a number of spreading grounds in the watershed including sites at Dominguez Gap, the Headworks, Hansen Dam, Lopez Dam, and Pacoima Dam. The Los Angeles River is hydraulically connected to the San Gabriel River through the Whittier Narrows Reservoir, although this occurs primarily during large storm events.

The Los Angeles River, which once flowed freely over the coastal plain, was channelized between 1914 and 1970 to control the runoff and reduce the impacts of major flood events in the region. Today, the Los Angeles River is lined on 77 km (47.9 miles) of its 82 km (51 miles) length. There are three stretches where the channel invest is not lined with concrete reinforcement. They are:

- Within the Sepulveda Flood Control Basin
- Through the Glendale Narrows
- South of Willow Street in Long Beach

The Los Angeles River, along much of its course, had intermittent flow during many of the years prior to channelization. In addition, many of its tributaries did not reach the river except during storm events. The current flow in the river is effluent dominated with approximately 80 percent of its flow originating at dischargers and the remaining flow coming from storm drain runoff and groundwater reaching the surface.

The Los Angeles River Watershed has impaired water quality in the middle and lower portions of the basin due to runoff from dense clusters of commercial, industrial, residential, and other urban activities. The 1998 303d list impairments in a majority of watershed are due to point and nonpoint sources. These impairments include the following: pH, ammonia, a number of metals, coliform, trash, scum, algae, oil, chorpyrifos as well as other pesticides, and volatile organics.

The San Gabriel River Watershed (see Map 5) is located in the eastern portion of Los Angeles County. It is bound by the San Gabriel Mountains to the north, most of San Bernardino/Orange County to the east, the division of the Los Angeles River from the San Gabriel River to the west, and the Pacific Ocean to the south. The watershed is composed of approximately 640 square miles of land with 26% of its total area developed. The watershed drains into the San Gabriel River from the San Gabriel Mountains to the Pacific Ocean. The major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains.

100 Year Flood Plain

Rio Hondo and San Gabriel River Basin

The Nation Flood Insurance Program as being in a 100-year flood plain area does not designate the District, which is primarily in the City of Baldwin Park. However, the District recognizes the potential for unexpected events along the Rio Hondo Channel, which runs north to south towards the western boundary of Baldwin Park, the Eaton Channel on the western boundary and the San Gabriel River basin, which runs north to south, on Baldwin Park's eastern boundary. For the purposes of the 100-year floodplain threat, it is not expected nor anticipated this type of flood incident would threaten or endanger the safety or well being of persons in the District or the Baldwin Park Community.

In the mid 1900's the U.S. Army Corps of Engineers conducted a comprehensive review and determined the existing system, specifically the Rio Hondo Channel from the Whittier Narrows' Reservoir (south of Baldwin Park) to the confluent with the Los Angeles River (11.9 miles), and the lower Los Angeles River from the confluence with the Rio Hondo Channel to its mount in Long Beach (11.7 miles) no longer provides adequate flood protection. Since this evaluation the Los Angeles County Flood Control District has taken steps to mitigate the threat, which includes the addition and enlargement of spreading grounds.

It is understood, however, that an unexpected catastrophic events can occur without warning. There is a potential, due to a catastrophic event, that water flow could exceed the limits of the flood control channels. There are two conditions: the first is referred to as "overflow", which means the water flow is greater than the channel capacity but the water outside the channel is contiguous with the channel due to the topography. The second is "breakout" which has a flow greater than the channel capacity but follows an alternate path through a community.

The criteria for levee failure are based upon the duration and magnitude of floodwaters overtopping the channel wall or levee. If the flow reaches 7,500 gallons per second above the channels capacity for at least one hour, levee failure is assumed to result.

The locations where levee failures are assumed to occur are at four different locations along the Los Angeles Rivera and the Rio Hondo Channel, none of which would impact the District or the Community of Baldwin Park..

Any potential flood incidents that could impact the District, or the Community of Baldwin Park, would result from heavy, prolonged rainfall in the San Gabriel Mountains resulting in debris flow into the channels, raising the water level. To reach a level of flow that would represent a threat to dam and reservoir systems would have to be at capacity with an overtopping result.

Urban Flooding

Southern California has experienced very heavy rains during an El Nino condition. The part of an El Nino condition that impacted southern California is referred to as the Southern Oscillation that is an irregular “see-saw” in which atmospheric pressure and wind patters shift across the Pacific. When normally high pressure in the eastern pacific decreases and normally low pressure over Australia and northern Indonesia rises, conditions are right for an El Nino event to develop.

As warm water shifts eastward, so do the convection and heavy rains caused by the increased buoyancy of air warmed by the underlying water. As warm water piles up in the east, upwelling of cold, nutrient-rich water is inhibited. Latent heat of condensation further warms the air, which further decreases atmospheric pressure in the east. The thunderstorms that have shifted from the western to the central and eastern Pacific disrupt high-level jet stream circulation by pumping warm air and moisture high into the atmosphere.

California is impacted as the El Nino storm track affects the location of jet streams, which are a major factor in producing winter weather patterns at mid-latitudes. Instead of coming ashore in the Pacific Northwest as usual, the southern jet stream hits California, carrying moisture and storms. In general, the effect of El Nino on Southern California is increased rainfall with accompanying floods, landslides, and coastal erosion.

The District is dependent on the City of Baldwin Park’s storm drain system and pumping stations. Although some of the cities form drains and stations may need updating the District has reviewed all 23 sites and related facilities for flooding problems. The Capital Improvement Plan has identified those sites requiring additional and/or updated drainage systems. The implementation plan has prioritized the work based on need and work is currently in progress.

The District is aware of potential health risks posed to the general area due to contamination caused by flooded sewage systems.

Dam and Reservoir Failure

Dam inundation is defined as the flooding that occurs as the result of structural failure of a dam. Structural failure may be caused by seismic activity. Seismic activity may also cause inundation by the action of a seismically induced wave, which overtops the dam without causing structural failure. This action is referred to as a seiche. Landslides flowing into a reservoir are also a source of potential dam failure or overtopping.

The Santa Fe Dam could have a significant impact on the District and the Community of Baldwin Park in the event of dam failure. Of lesser impact would be the failure of the San Gabriel Dam, Morris Dam, Santa Anita Debris Basin, Garvey Reservoir and the Cogswell Dam. None of these dams or reservoirs are located in the City of Baldwin Park.

Failure of these dams during a catastrophic event, such as a severe earthquake, is considered very unlikely event. Due to the method of construction these dams have performed well in earthquakes, and failure is not expected. In the case of failure at the Cogswell and San Gabriel Dams to the north of the District, overflowing waters would be contained by the Morris Dam and the San Gabriel River Basin. In the event of failure of Morris Dam, the height and velocity of water would rapidly diminish at the mouth of the San Gabriel Canyon and spread out laterally, leaving the District unaffected. In the event of failure of the Garvey Reservoir in Monterey Park, the anticipated inundation path would proceed in a northerly direction along Alhambra Avenue on the west and Orange Avenue on the east to Garvey Avenue, and east through the natural land contours into the Whittier Narrows Dam leaving the District unaffected. The Santa Anita Debris Basin, in the event of overflow or failure, would proceed south into the Santa Anita Wash and be contained, leaving the District unaffected.

Santa Fe Dam

For the purpose of hazard analysis, the greatest risk to the District would be from an uncontrolled release of the Santa Fe Dam. The Dam is an earth filled dam that was completed in 1949 and is owned by the Army Corps of Engineers. The dam is located in the northwest area of the City of Irwindale, north of Arrow Highway between Buena Vista Drive (west) and Irwindale Avenue (east). The dam is 16,960 feet long and contains reservoir space for approximately 250,000 acre-feet of water.

Failure of the dam is considered highly unlikely since water is stored only temporarily in the Santa Fe Reservoir and is rapidly released into downstream spreading grounds and channel to prepare for storm inflow. It is extremely unlikely that a dam-destroying event, which itself is unlikely, would occur at a time when there was a sufficient volume of water in the reservoir to inundate the downstream area.

Inundation Area

In the event of dam failure inundation would impact a portion of the District as well as areas in the following cities:

- City of El Monte
- City of Arcadia
- City of Baldwin Park
- City of Industry
- City of Irwindale
- City of Monrovia
- City of Rosemead
- City of South El Monte
- City of Temple City
- City of West Covina
- Unincorporated County areas to the east and west.

There are potential locations in the Santa Fe Dam for a failure:

- East of the 605 Freeway and north of Arrow Highway near the gauging station.
- North of Arrow Highway near Azusa Canyon Road in the City of Irwindale, west of Southern Pacific tracks.

Inundation Path

In the event a failure at the dam, the water will flow south, bounded on the east by Irwindale Avenue and on the west it will expand out to Santa Anita Avenue. The water would continue in a southwesterly direction to Baldwin Avenue at Lower Azusa Road. It would continue southwesterly to the boundary of the Whittier Narrows golf course where it starts flowing back and into the Whittier Flood Control Basin.

On the east, the boundary is along Irwindale Avenue but at Puente Avenue, the boundary starts southwesterly across the San Bernardino (I-10) freeway, where it angles over to Francisquito Road and Puente Avenue, then continuing southwesterly to Vineland and the Southern Pacific tracks. From there it continues southwesterly to the 605 freeway at the 60 freeway.

There are several natural dams within the inundation area. These include the San Bernardino (I-10) freeway, the Pomona (60) freeway and miscellaneous railroad tracks. Within these natural dams drainage will occur at underpasses, however, there is a potential for water build up to the height of the natural dam until sufficient drainage takes place.

Mitigation Goal

Minimize losses to existing and future buildings and structures.

Objective

Ensure that areas susceptible to flooding on District property are addressed to reduce or eliminate the hazard that exists.

Actions for Implementation

- Inspect and lean all gorund and roof drains, gutters, scuppers, down pipes, roof surfaces and runoff areas.
- Move all water sensitive materials and equipment to the highest practical level available.
- Continue to obtain knowledge and informaiton about the areas of our District sites that may have experienced water damage or flooding in the past and which could suffer damage in the future without adequate preparation.

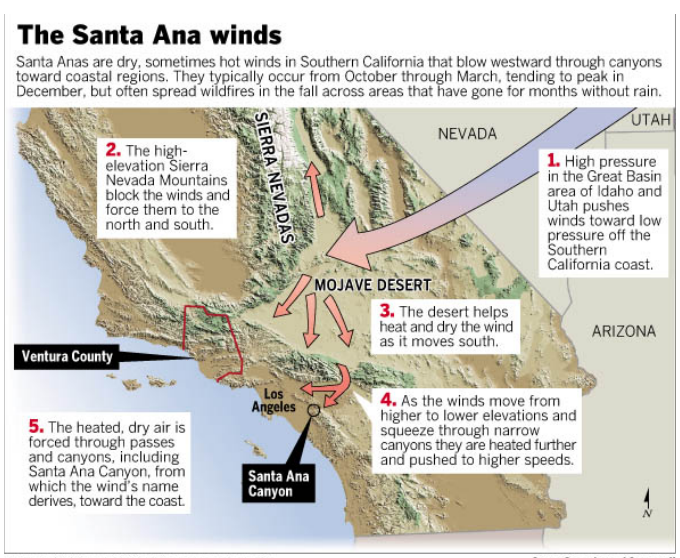
Section IV
Windstorms/Adverse Weather Occasions

Windstorms

Historically, high wind conditions have caused injury, death, property damage, and fanned wild fires before becoming a firestorm. Windstorms with significant intensity have been responsible for the sinking of watercraft and the downing of aircraft resulting in the loss of life. The most common wind condition is a Santa Ana Wind. This condition has generated winds that have exceeded 100 mph. As recently as 1996, a wind velocity of 111 mph was recorded at Freemont Canyon and 92 mph at Rialto generated from the same Santa Ana wind, resulting in the loss of life due to flying debris. The high wind velocities caused by this condition has brought about the temporary closure of highways (I-15 and 215) due to the hazard to vehicle travel. The District is not located near passes where the highest velocities are generated. However, the District can still experience high winds from a Santa Ana condition.

Santa Ana Wind Condition

Santa Ana winds are generally defined as warm, dry winds that blow from the East or northeast (offshore). These winds occur below passes and canyons of the coastal ranges of Southern California and in the Los Angeles basin. Santa Ana winds often blow with exceptional speed in the Santa Ana Canyon (the canyon from which it derives its name). Forecasters at the NWS in Oxnard and San Diego usually place speed minimums on these winds and reserve the use of "Santa Ana" for winds greater than 25 knots.



Sources: UCLA and UC San Diego research studies   Steve Greenberg / Star staff

The complex topography of Southern California, combined with various atmospheric conditions, creates numerous scenarios that can cause widespread or isolated Santa Ana events. Commonly, Santa Ana winds develop when a region of high pressure builds over the Great Basin (the high plateau east of the Sierra mountains and west of the Rocky mountains including most of Nevada and Utah). Clockwise circulation around the center of a high pressure area forces air down the slope form the high plateau. The air warms as it descends toward the California coast at the rate of 5^{o} F per 1000 feet due to heating of the air caused by compression. This heating of the air as it is compressed provides the primary source of warming. The air is dry since it originated in the desert, and it moisture will continue to dissipate as it is heated.

Santa Ana winds commonly occur between October and February with December having the highest frequency of events. Summer events are rare. Wind speeds are typically north to east at 35 knots through and below passes and canyons with gusts to 50 knots. Stronger Santa Ana winds can have gusts greater than 60 knots over widespread areas and gusts greater than 100 knots in favored areas. Frequently, the strongest winds in the basin occur during the night and morning hours due to the absence of a sea breeze. The sea breeze that typically blows onshore daily, can moderate the Santa Ana winds during the late morning and afternoon hours.

Santa Ana winds are an important forecast challenge because of the high fire danger associated with them. Also, unusually high surf conditions on the northeast side of the Channel Islands normally accompany a Santa Ana event. Other hazards include: wind damage to property, turbulence, low-level wind shear for aircraft, and high seas and wind conditions which is a danger for boaters.

Severe Weather

A variety of weather related events have occurred in Southern California in recent and past years that would seem unusual for the region due to the fact that these events do not occur with great frequency, but do occur. Some of these weather events have occurred in other parts of the country on a larger scale with sever intensity that has resulted in wide scale destruction, injury, and loss of life.

Tornados, Funnel Clouds, and Waterspouts

These weather events are considered rare for Southern California and historically have not impacted the District however; these events are not predictable as to time of the event or location. Funnel clouds and waterspouts are related to coastal areas and have been responsible for damage and injuries.

Several tornados have been recorded in the Southern California area. Tornados have caused damage to property, caused power outages, injuries, and responsible for the loss of life when a tornado touched down in Santa Monica in 1952. Meteorologists can identify weather conditions that would be conducive to forming a tornado but this does mean that the tornado will form. If a tornado forms the exact location, size and intensity are not predictable.

Thunderstorms and Hail

Thunderstorms occur annually in Southern California but there impact is usually limited to power outages in urban areas but ground strikes have been responsible for fires in rural and wooded areas. It is rare that a person is truck by lighting but loss of life has resulted.

Hail is rare but when it occurs it is usually in conjunction with windy conditions. The intensity of a driving wind and hail stone as large as a golf ball have caused significant damage.

High and Low Temperatures

Generally California, especially Southern California, is considered to have a Mediterranean type of climate. The area has experienced both very high and significantly low temperatures. High temperatures have exceeded 110 degrees that has resulted in the loss of crops, livestock, workers sent home, and the temporary closure of schools. Very high temperatures in August 1997 contributed to five deaths. During, what is referred to, California's fire season high temperatures have hampered firefighting efforts.

Southern California has experienced low temperatures but this situation is usually short in duration. The most significant impact is the loss of crops.

Objective

- Reduce the hazard of falling trees and tree limbs during high wind conditions.

Actions for Implementation

- Perform regular assessments of all major trees and their health status throughout the District.
- Remove threes that are diseased or may have the potential to fall and are deemed hazardous to life and property.

Part III – Resources

Appendix A
Plan Resource Directory

Plan Resource Directory

The Plan Resource Directory provides contact information for local, regional, state, and federal programs that are currently involved in hazard mitigation activities. The Baldwin Park Unified School District Hazard Mitigation Steering Committee may look to the organizations on the following pages for resources and technical assistance. The Resource Directory provides a foundation for potential partners in action item implementation.

The Baldwin Park Unified School District Hazard Mitigation Steering Committee will continue to add contact information for organizations currently engaged in hazard mitigation activities. This section may be used by various community members interested in hazard mitigation information and projects.

American Public Works Association (APWA)			
Level: National	Hazard: Multi	http://www.apwa.net	
2345 Grand Boulevard		Suite 500	
Kansas City, MO 64104-2641		Ph: 816/472-6100	Fx: 816/472-1610
Notes: The American Public Works Association is an international educational and professional association of public agencies, private sector companies, and individuals dedicated to providing high quality public works goods and services.			
Association of State Floodplain Managers			
Level: Federal	Hazard: Flood	www.floods.org	
2809 Fish Hatchery Road			
Madison, WI 53713		Ph: 608/274-0123	Fx: 608/274-0696
Note: The Association of State Floodplain Managers is an organization of professionals involved in floodplain management, flood hazard mitigation, the National Flood Insurance Program, and flood preparedness, warning and recovery.			
City of Baldwin Park			
Level: Local	Hazard: Multi	www.ci.baldwin-park.ca.us	
14403 East Pacific Avenue			
Baldwin Park, CA 91706		Ph: 626/960-4011	Fx: 626/962-2625
Notes: The District is within the City of Baldwin Park which was the source for historical information and Community Profile. The City's disaster plan also provided natural hazard background information.			

Building Seismic Safety Council (BSSC)			
Level: National	Hazard: Earthquake	www.bssconline.org	
1090 Vermont Avenue, NW		Suite 700	
Washington, DC 20005		Ph: 202/289-7800	Fx: 202/289-1092
Notes: The Building Seismic Safety Council (BSSC) develops and promotes building earthquake risk mitigation regulatory provisions for the nation.			
California Department of Transportation (CalTrans)			
Level: State	Hazard: Multi	http://www.dot.ca.gov	
120 S. Spring Street			
Los Angeles, CA 90012		Ph: 213/897-3656	Fx: 213/897-3836
Notes: CalTrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries. Alone and in partnership with Amtrack, CalTrans, is also involved in the support of intercity passenger rail service in California.			
California Resources Agency			
Level: State	Hazard: Multi	http://resources.ca.gov/	
1416 Ninth Street		Suite 1311	
Sacramento, CA 95814		Ph: 916/653-5656	Fx: 916/653-8102
Notes: The California Resources Agency restores, protects and manages the state's natural, historical and cultural resources for current and future generations using solutions based on science, collaboration and respect for all the communities and interests involved.			
California Division of Mines and Geology (DMG)			
Level: State	Hazard: Milti	www.consrv.ca.gov/cgs/index.htm	
801 K Street		MS 12-30	
Sacramento, CA 95814		Ph: 916/445-1825	Fx: 916/445-5718
Notes: The California Geological Survey develops and disseminates technical information and advice on California's geology, geologic hazards, and mineral resources.			
California Environmental Resources Evaluation System (CERES)			
Level: State	Hazard: Multi	http://ceres.ca.gov	
900 N Street		Suite 250	
Sacramento, CA 95814		Ph: 916/653-2238	Fx: 916/653-8102
Notes: CERES is an excellent website for access to environmental information and websites.			

California Department of Water Resources (DWR)			
Level: State	Hazard: Flood	http://www.dwr.water.ca.gov	
1416 9th Street			
Sacramento, CA 95814		Ph: 916/653-6192	Fx: 916/653-4684
Notes: The Department of Water Resources manages the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments.			

California Department of Conservation: Southern California Regional Office			
Level: State	Hazard: Multi	www.consrv.ca.gov	
655 S. Hope Street		#700	
Los Angeles, CA 90017-2321		Ph: 213/239-0878	Fx: 213/239-0984
Notes: The Department of Conservation provides services and information that promote environmental health, economic vitality, informed land-use decisions and sound management of our state's natural resources.			

Federal Emergency Management Agency, Mitigation Division			
Level: Federal	Hazard: Multi	www.fema.gov/fima/planhowto.shtm	
500 C Street, SW			
Washington, DC 20472		Ph: 202/646-2781	Fx: 202/646-7970
Notes: The Mitigation Division manages the National Flood Insurance Program and oversees FEMA's mitigation programs. It has a number of programs and activities of which provide citizens Protection with flood insurance; Prevention with mitigation measures, and partnerships with communities throughout the country.			

Floodplain Management Association			
Level: Federal	Hazard: Flood	www.floodplain.org	
P.O. Box 50891			
Sparks, NV 89435-0891		Ph: 775/626-6389	Fx: 775/626-6389
Notes: The Floodplain Management Association is a nonprofit educational association. It was established in 1990 to promote the reduction of flood losses and to encourage the protection and enhancement of natural floodplain values. Members include representatives of federal, state and local government agencies as well as private firms.			

Governor's Office of Emergency Services (OES)			
Level: State	Hazard: Multi	www.oes.ca.gov	
P.O. Box 419047			
Rancho Cordova, CA 95741-9047		Ph: 916/845-8911	Fx: 916/845-8910
Notes: The Governor's Office of Emergency Services coordinates overall state agency response to major disasters in support of local government. The office is responsible for assuring the state's readiness to respond to and recover from natural, manmade, and war-caused emergencies, and for assisting local governments in their emergency preparedness, response and recovery efforts.			

Los Angeles County Economic Development Corporation (LAEDC)			
Level: Regional	Hazard: Multi	www.laedc.org	
444 S. Flower Street		34th Floor	
Los Angeles, CA 90071		Ph: 213/236-4813	Fx: 213/623-0281
Notes: The LAEDC is a private, non-profit 501(c)3 organization established in 1981 with the mission to attract, retain and grow businesses and jobs in the Los Angeles region. The LAEDC is widely relied upon for its Southern California Economic Forecasts and Industry Trend Reports. Lead by the renowned Jack Kyser (Sr. Vice President, Chief Economist) his team of researchers produces numerous publications to help business, media and government navigate the LA region's diverse economy.			

Los Angeles County Public Works Department			
Level: County	Hazard: Multi	http://ladpw.org	
900 S. Fremont Avenue			
Alhambra, CA 91803		Ph: 626/458-5100	Fx:
Notes: The Los Angeles County Department of Public Works protects property and promotes public safety through Flood Control, Water Conservation, Road Maintenance, Bridges, Buses and Bicycle Trails, Building and Safety, Land Development, Waterworks, Sewers, Engineering, Capital Projects and Airports.			

National Resources Conservation Service (NRCS)			
Level: Federal	Hazard: Multi	http://www.nrcs.usda.gov/	
14th and Independence Avenue, SW		Room 5105-A	
Washington, DC 20250		Ph: 202/720-7246	Fx: 202/720-7690
Notes: NRCS assists owners of America's private land with conserving their soil, water, and other natural resources, by delivering technical assistance based on sound science and suited to a customer's specific needs. Cost shares and financial incentives are available in some cases.			

National Fire Protection Association (NFPA)			
Level: National	Hazard: Wildfire	http://www.nfpa.org/catalog/home/index.asp	
1 Batterymarch Park			
Quincy, MA 02169-7471		Ph: 617/770-3000	Fx: 617/770-0700
Notes: The mission of the international nonprofit NFPA is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education.			

National Floodplain Insurance Program (NFIP)			
Level: Federal	Hazard: Flood	www.fema.gov/nfip/	
500 C Street, SW			
Washington, SC 20472		Ph: 202/566-1600	Fx:
Notes: The Mitigation Division manages the National Flood Insurance Program and oversees FEMA's mitigation programs. It has a number of programs and activities which provide citizens protection with flood insurance; prevention with mitigation measures, and partnerships with communities throughout the country.			

National Oceanic/Atmospheric Administration (NOAA)			
Level: Federal	Hazard: Multi	www.noaa.gov	
14th Street & Constitution Avenue NW		Room 6013	
Washington, DC 20230		Ph: 202/482-6090	Fx: 202/482-3154
Notes: NOAA's historical role has been to predict environmental changes, protect life and property, provide decision makers with reliable scientific information, and foster global environmental stewardship.			

National Weather Service			
Level: Federal	Hazard: Multi	http://www.nws.noaa.gov/	
520 North Elevar Street			
Oxnard, CA 93030		Ph: 805/988-6615	Fx: 805/988-6613
Notes: The National Weather Service is responsible for providing weather service to the nation. It is charged with the responsibility of observing and reporting the weather and with issuing forecasts and warnings of weather and floods in the interest of national safety and economy. Briefly, the priorities for service to the nation are: 1) protection of life, 2) protection of property, and 3) promotion of the nation's welfare and economy.			

San Gabriel Valley Economic Partnership			
Level: Regional	Hazard: Multi	www.valleynet.org	
4900 Rivergrade Road		Suite A310	
Irwindale, CA 91706		Ph: 626/856-3400	Fx: 626/856-5115
Notes: The San Gabriel Valley Economic Partnership is a non-profit corporation representing both public and private sectors. The Partnership is the exclusive source for San Gabriel Valley – specific information, expertise, consulting, products, services, and events. It is the single organization in the Valley with the mission to sustain and build the regional economy for the mutual benefit of all thirty cities, chambers of commerce, academic institutions, businesses and residents.			

Sanitation Districts of Los Angeles County			
Level: County	Hazard: Flood	http://www.lacsd.org/	
1955 Workman Mill Road			
Whittier, CA 90607		Ph: 562/699-7411 x2301	Fx: 562/699-5422
Notes: The Sanitation Districts provide wastewater and solid waste management for over half the population of Los Angeles County and turn waste products into resources such as reclaimed water, energy and recyclable materials.			

South Coast Air Quality Management District (AQMD)			
Level: Regional	Hazard: Multi	www.aqmd.gov	
21865 E. Copley Drive			
Diamond Bar, CA 91765		Ph: 800/CUT-SMOG	Fx:
Notes: AQMD is a regional government agency that seeks to achieve and maintain healthful air quality through a comprehensive program of research, regulations, enforcement, and communication. The AQMD covers Los Angeles and Orange Counties and parts of Riverside and San Bernardino Counties.			

Southern California Earthquake Center (SCEC)			
Level: Regional	Hazard: Earthquake	www.scec.org	
3651 Trousdale Parkway		Suite 169	
Los Angeles, CA 90089-0742		Ph: 213/740-5843	Fx: 213/740-0011
Notes: The Southern California Earthquake Center (SCEC) gathers new information about earthquakes in Southern California, integrates this information into a comprehensive and predictive understanding of earthquake phenomena, and communicates this understanding to end-users and the general public in order to increase earthquake awareness, reduce economic losses, and save lives.			

Southern California Association of Governments (SCAG)			
Level: Regional	Hazard: Multi	www.scag.ca.gov	
818 W. Seventh Street		12^{th} Floor	
Los Angeles, CA 90017		Ph: 213/236-1800	Fx: 213/236-1825
Notes: The Southern California Association of Governments functions as the Metropolitan Planning Organization for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. As the designated Metropolitan Planning Organization, the Association of Governments is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality.			
State Fire Marshal (SFM)			
Level: State	Hazard: Wildfire	http://osfm.fire.ca.gov	
1131 "S" Street			
Sacramento, CA 95814		Ph: 916/445-8200	Fx: 916/445-8509
Notes: The Office of the State Fire Marshal (SFM) supports the mission of the California Department of Forestry and Fire Protection (CDF) by focusing on fire prevention. SFM regulates buildings in which people live, controls substances which may cause injuries, death and destruction by fire; provides statewide direction for fire prevention within wildland areas; regulates hazardous liquid pipelines; reviews regulations and building standards; and trains and educates in fire protection methods and responsibilities.			
The Community Rating Systems (CRS)			
Level: Federal	Hazard: Flood	http://www.fema.gov/nfip/crs.shtm	
500 C Street SW			
Washington, DC 20472		Ph: 202/566-1600	Fx:
Notes: The Community Rating System (CRS) recognizes community floodplain management efforts that go beyond the minimum requirements of the NFIP. Property owners within the County would receive reduced NFIP flood insurance premiums if the County implements floodplain management practices that qualify it for a CRS rating. For further information on the CRS, visit FEMA's website.			
United States Geological Survey (USGS)			
Level: Federal	Hazard: Multi	http://www.usgs.gov/	
345 Middlefield Road			
Menlo Park, CA 94025		Ph: 650/853-8300	
Notes: The USGS provides reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.			

US Army Corps of Engineers			
Level: Federal	Hazard: Multi	http://www.usace.army.mil	
P.O. Box 532711			
Los Angeles, CA 90053-2325		Ph: 213/452-3921	Fx: 213/452-4209
Notes: The United States Army Corps of Engineers work in engineering and environmental matters. A workforce of biologists, engineers, geologists, hydrologists, natural resource managers and other professionals provide engineering services to the nation including planning, designing, building and operating water resources and other civil works projects.			
USGS Water Resources			
Level: Federal	Hazard: Multi	www.water.usgs.gov	
6000 J Street		Placer hall	
Sacramento, CA 95819-6129		Ph: 916/278-3000	Fx: 916/278-3070
Notes: The USGS Water Resources mission is to provide water information that benefits the Nation's citizens: publications, data, maps, and applications software.			
Western States Seismic Policy Council (WSSPC)			
Level: Regional	Hazard: Earthquake	www.wsspc.org/home.html	
125 California Avenue		Suite D201, #1	
Palo Alto, CA 94306		Ph: 650/330-1101	Fx: 650/326-1769
Notes: WSSPC is a regional earthquake consortium funded mainly by FEMA. Its website is a great resource, with information clearly categorized – from policy to engineering to education.			

Appendix B
The Public Participation Process

The Public Participation Process

Public participation is a key component to the strategic planning process. Community participation offers citizens the chance to voice their ideas, interests, and opinions. The Federal Emergency Management Agency also requires public input during the development of mitigation plans.

The Baldwin Park Unified School District Local Hazard Mitigation Plan integrates a cross-section of citizen input throughout the planning process. To accomplish this goal, the Baldwin Park Unified School District Hazard Mitigation Steering Committee developed a public participation process through these components: (1) developing a Steering Committee comprised of knowledgeable individuals representative of the District and the Community; (2) create a Core Group from the Steering Committee to conduct research and plan development; and (3) conduct two public hearings to identify common concerns and ideas regarding hazard mitigation and to discuss specific goals and actions of the mitigation plan.

Integrating public participation during the development of the Baldwin Park Unified School District Local Hazard Mitigation Plan has ultimately resulted in increased public awareness. Through citizen involvement, the mitigation plan reflects Community issues, concerns, and new ideas and perspectives on mitigation opportunities and plan action items.

Steering Committee

Hazard mitigation at the Baldwin Park Unified School District is overseen by the Baldwin Park Unified School District Hazard Mitigation Steering Committee, which consists of representatives from various city agencies, representatives from local business and Community organizations and the public. Steering Committee members have an understanding of how the Community is structured and how District staff, Community, and the environment may be affected by natural hazard events. The Steering Committee guided the development of the plan, and assisted in developing plan goals and action items, in addition to sharing local expertise to create a more comprehensive plan.

Table B-1 lists the various people and organizations that participated on the Baldwin Park Unified School District Hazard Mitigation Steering Committee.

Table B-1 **Baldwin Park Unified School District Hazard Mitigation Steering Committee**
Mr. Mark M. Skvarna, Baldwin Park Unified School District, Superintendent
Captain Stephen Bayne, Baldwin Park Unified School District
Mr. Patrick Healy, Baldwin Park Unified School District, Facilities

Table B-1 **Baldwin Park Unified School District Hazard Mitigation Steering Committee**
Ms. Jeanne Koenig, Baldwin Park Unified School District, Purchasing
Ms. Amelia Ayala, Baldwin Park Unified School District, Risk Manager
Mr. Irv Dawson, City of Baldwin Park, Emergency Services
Ms. Amy Harbin, City of Baldwin Park, Planning
Ms. Brenda Hunemiller, Office of Disaster Management, Area D
Mr. Craig Jollison, Osborn, Private Facilities Contractor
Captain Terry Diceman, Los Angeles County Fire Department
Mr. Arthur Eddy, Baldwin Park Unified School District, Education Association
Mr. Ken Bishop, California School Employee Association

Meeting #1: June 2004 – Core Group

This was the first meeting of the Core Group. The Core Group was formed to facilitate the planning process through research, forming of a Steering Committee, schedule meetings and public hearings, and present material to the Steering Committee for review and approval.

An invitation list for the Steering Committee was developed with the purpose of creating a diverse cross section of the District that would allow for a wide range of input and opinion. The following is the invitation list created by the Core Group:

- School District Board Member
- School Principal
- District Superintendent
- Parent Teacher's Association
- Parent – Citizen at large
- City of Baldwin Park
- Baldwin Park Unified School District Police Department
- Los Angeles County Fire Department
- Los Angeles County Office of Disaster Management – Area D

The District's Disaster Preparedness Consultant would schedule and facilitate the meetings throughout the planning process along with attending public hearings and updating the Board. Guided by the Core Group, the Steering Committee would meet each month or on an as needed basis.

The Core Group felt that the first Steering Committee meeting should be an orientation to DMA 2000 so the planning process was understood along with an approximate time frame to complete the process. It was agreed that the Steering Committee would meet once a month or more frequently if necessary to complete the final DMA2K plan. The first meeting in June 2004 would be an orientation to DMA 2000 with all subsequent meetings as actual work/planning sessions.

It was also determined that research should commence immediately on threat analysis, vulnerabilities, and District history and profile. This information would be ready for presentation at the second meeting in March.

Meeting #2: June 22, 2004 – Steering Committee

The Steering Committee met for the first time and it started with self-introductions, including background.

The District's Disaster Preparedness Consultant prepared an agenda and executive summary overview of the DMA 2000 planning process. The Steering Committee was given information on their role in the planning process. This included the role of the Core Group that would be developing information through research and implementing the information into a draft plan for Committee review and input.

Proposed plan maintenance was discussed which incorporates an annual review by the Steering Committee and a five year review by California Governors Office of Emergency Services and the Federal Emergency Management Agency. The Committee agreed the plan should be reviewed annually.

The District's Disaster Preparedness Consultant discussed public involvement and public hearings. Public hearings would start at the June 22, 2004 meeting with a final public hearing upon the completion of the DMA planning process. The final public hearing will be the forum to adopt the Hazard Mitigation Plan by passing a School Board resolution.

The Committee approved a public notification process that included sending a public hearing announcement home with each and every student in the District. The announcement explained that further public hearing announcements would be published in the local newspaper.

The Steering Committee was given a schedule of project tasks. The Committee was asked to meet on a monthly basis or as necessary to complete the planning process.

Public Hearing #1: June 22, 2004

The first Public Hearing was conducted with no comments or questions from the public or School Board.

Meeting #2: July 28, 2004 – Steering Committee

The District's Consultant initiated an in depth discussion on how BPUSD facilities and building contents were insured. The Consultant provided an overview on the importance of accurately identifying all replacement values of existing buildings and their contents along with the condition of the buildings and previous steps taken to mitigate against identified vulnerabilities such as earthquakes.

Through participative discussion the Steering Committee in conjunction with the Core Group determined that employee training including disaster management, first aid, CPR, search and rescue, and managing small fires through fire extinguisher training were Baldwin Park Unified School District's top training priorities. It was unanimously agreed that employee training should be a mitigation strategy.

Hazard analysis was reviewed. Earthquake was considered the number one hazard and potentially the only one. However, two other threats were considered even though there is little or no District history. Due to the close proximity of a dam (Santa Fe Dam) and past El Nino events flooding was considered a hazard along with adverse weather conditions. Due to the low number of and obvious hazards to the District the Committee felt that rating was obvious and it was not necessary to go through a lengthy rating process.

The Committee was provided with the FEMA Crosswalk so they would have an understanding of how the plan is rated and the components that are required in an approved plan.

Meeting #3: August 17, 2004 – Steering Committee

The Steering Committee reviewed the first draft of plan and suggested minor revisions. The second draft will be presented for review and approval at the next Steering Committee meeting in the first week of September 2004. After revisions and modifications were completed the information would be presented at the second public hearing.

Meeting minutes were discussed along with the importance and need to gather the information from recorded meetings and maintain documentation of the planning process.

The time line was established by the Steering Committee that identified a September 2004 meeting and public hearing for final review and adoption. By the last meeting in August the draft should be completed and ready for review by the Committee and adoption by the Board at the September meeting and public hearing.

The Committee reviewed the final draft of Part I, and Part II which as presented by the District's Disaster Preparedness Consultant. The Core Group reviewed the three hazards, earthquake, flood and adverse weather to establish mitigation strategies and action items. A mitigation strategy was developed to deal with loose and hazards items in the classroom.

The strategies reviewed will be prepared for the September Steering Committee meeting. This includes threat reduction action, building standards, employee training, and the District's Capital Improvement Plan that includes mitigation measures.

Public Hearing #2: September 14, 2004

The District's Hazard Mitigation Plan was placed on the agenda for Board review and public comment.

The District's Disaster Preparedness Consultant provided an update on changes in the mitigation planning process, which included a letter of intent for OES and changes in the FEMA crosswalk.

Meeting #4: September 14 , 2004 – Steering Committee

Letter of intent was reviewed. The District's Disaster Preparedness Consultant had directed questions to OES regarding FEMA. Prior to adoption have School Board review the final draft plan.

Crosswalk – Basic information and rating system that will be completed. Documentation will be included in the plan when it is submitted.

Discussion in regards to multi-jurisdictional efforts were expanded and the decision to continue on with our Plan and submit to the State and FEMA simultaneously.

Public hearing held on September 14, 2004 at the Board of Education Meeting. No questions were asked however, the Committee did get positive feedback from the Board of Trustee members in keeping the public informed and also keeping the Board up to date on the project.

The committee members were welcomed and acknowledged for all their hard work and perseverance in developing the District's plan.

This is the last Steering Committee meeting. After Board approval, the plan will be submitted to the State OES and FEMA for review and approval.

Once the Baldwin Park Unified School District Board of Education adopts the plan, a hard copy, electronic copy, and a cover letter will be provided in advance of the District's submittal to California's OES and FEMA for review and approval.

Public Hearing #2: September 14, 2004

District Disaster Preparedness consultant will add comments upon completion of second Public Hearing.

A completed Local Hazard Mitigation Plan for the Baldwin Park Unified School District was presented to the District Board of Education for review and approval. The plan was approved and adopted by the Board.

There were no public comments or questions regarding the plan.

Appendix C
Acronyms

Federal Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ATC	Applied Technology Council
b/ca	Benefit/Cost Analysis
BFE	Base Flood Evaluation
BLM	Bureau of Land Management
BSSC	Building Seismic Safety Council
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CRS	Community Rating System
EDA	Economic Development Administration
EPA	Environmental Protection Agency
ER	Emergency Relief
EWP	Emergency Watershed Protection (NRCS Program)
FAS	Federal Aid System
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance (FEMA Program)
FTE	Full Time Equivalent
GIS	Geographic Information System
GNS	Institute of Geological and Nuclear Sciences (International)
GSA	General Services Administration
HAZUS	Hazards U.S.

HMGP	Hazard Mitigation Grant Program
HMST	Hazard Mitigation Survey Team
HUD	Housing and Urban Development (United States, Department of)
IBHS	Institute of Business and Home Safety
ICC	Increased Cost of Compliance
IHMT	Interagency Hazard Mitigation Team
NCDC	National Climate Data Center
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHMP	Natural Hazard Mitigation Plan (also known as “409 Plan”)
NIBS	National Institute of Building Sciences
NIFC	National Interagency Fire Center
NMFS	National Marine Fisheries Services
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
SBA	Small Business Administration
SEAO	Structural Engineers Association of Oregon
SHMO	State Hazard Mitigation Officer
TOR	Transfer of Development Rights
UGB	Urban Growth Boundary
URM	Unreinforced Masonry
USACE	Unites States Army Corps of Engineers
USBR	United States Bureau of Reclamation

USDA	United States Department of Agriculture
USFA	United States Fire Administration
USFS	United States Forest Service
USGS	United States Geological Survey
WSSPC	Western States Seismic Policy Council

California Acronyms

A&W	Alert and Warning
AA	Administering Areas
AAR	After Action Report
ARC	American Red Cross
ARP	Accidental Risk Prevention
ATC20	Applied Technology Council 20
ATC21	Applied Technology Council 21
BCP	Budget Change Proposal
BSA	California Bureau of State Audits
CAER	Community Awareness & Emergency Response
CalARP	California Accidental Release Prevention
CalBO	California Building Officials
CalEPA	California Environmental Protection Agency
CalREP	California Radiological Emergency Plan
CALSTARS	California State Accounting Reporting System
CalTRANS	California Department of Transportation
CBO	Community Based Organization
CD	Civil Defense
CDF	California Department of Forestry and Fire Protection
CDMG	California Division of Mines and Geology
CEC	California Energy Commission
CEPEC	California Earthquake Prediction Evaluation Council

CESRS	California Emergency Services Radio System
CHIP	California Hazardous Identification Program
CHMIRS	California Hazardous Materials Incident Reporting System
CHP	California Highway Patrol
CLETS	California Law Enforcement Telecommunications System
CSTI	California Specialized Training Institute
CUEA	California Utilities Emergency Association
CUPA	Certified Unified Program Agency
DAD	Disaster Assistance Division (of the state Office of Emergency Services)
DFO	Disaster Field Office
DGS	California Department of General Services
DHSRHB	California Department of Health Services, Radiological Health Branch
DO	Duty Officer
DOC	Department Operations Center
DOE	Department of Energy (U.S.)
DOF	California Department of Finance
DOJ	California Department of Justice
DPA	California Department of Personnel Administration
DPIG	Disaster Preparedness Improvement Grant
DR	Disaster Response
DSA	Division of the State Architect
DSR	Damage Survey Report
DSW	Disaster Service Worker
DWR	California Department of Water Resources
EAS	Emergency Alerting System

EDIS	Emergency Digital Information System
EERI	Earthquake Engineering Research Institute
EMA	Emergency Management Assistance
EMI	Emergency Management Institute
EMMA	Emergency Managers Mutual Aid
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency (U.S.)
EPEDAT	Early Post Earthquake Damage Assessment Tool
EPI	Emergency Public Information
EPIC	Emergency Public Information Council
ESC	Emergency Services Coordinator
FAY	Federal Award Year
FDAA	Federal Disaster Assistance Administration
FEAT	Governor's Flood Emergency Action Team
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FIR	Final Inspection Reports
FIRESCOPE	Firefighting Resources of Southern California Organized for Potential Emergencies
FMA	Flood Management Assistance
FSR	Feasibility Study Report
FY	Fiscal Year
GIS	Geographical Information System

HAZMAT	Hazardous Materials
HASMIT	Hazardous Mitigation
HAZUS	Hazards United States (an earthquake damage assessment prediction tool)
HAD	Housing and Community Development
HEICS	Hospital Emergency Incident Command System
HEPG	Hospital Emergency Planning Guidance
HIA	Hazard Identification and Analysis Unit
HMEP	Hazardous Materials Emergency Preparedness
HMGP	Hazard Mitigation Grant Program
IDE	Initial Damage Estimate
IA	Individual Assistance
IFG	Incident Response Geographic Information System
IPA	Information and Public Affairs (of state Office of Emergency Services)
LAN	Local Area Network
LEMMA	Law Enforcement Master Mutual Aid
LEPC	Local Emergency Planning Committee
MARAC	Mutual Aid Regional Advisory Council
MHID	Multihazad Identification
MOU	Memorandum of Understanding
NBC	Nuclear, Biological, Chemical
NEMA	National Emergency Management Agency
NEMIS	National Emergency Management Information System
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Association
NPP	Nuclear Power Plant

NSF	National Science Foundation
NWS	National Weather Service
OA	Operational Area
OASIS	Operational Area Satellite Information System
OCC	Operations Coordination Center
OCD	Office of Civil Defense
OEP	Office of Emergency Planning
OES	California Governor's Office of Emergency Services
OSHPD	Office of Statewide Health Planning and Development
OSPR	Oil Spill Prevention and Response
PA	Public Assistance
PC	Personal Computer
PDA	Preliminary Damage Assessment
PIO	Public Information Office
POST	Police Officer Standards and Training
PPA/CA	Performance Partnership Agreement/Cooperative Agreement (FEMA)
PSA	Public Service Announcement
PTAB	Planning and Technological Assistance Branch
PTR	Project Time Report
RA	Regional Administrator (OES)
RADEF	Radiological Defense (program)
RAMP	Regional Assessment of Mitigation Priorities
RAPID	Railroad Accident Prevention & Immediate Deployment
RDO	Radiological Defense Officer
RDMHC	Regional Disaster Medical Health Coordinator

REOC	Regional Emergency Operations Center
REPI	Reserve Emergency Public Information
RES	Regional Emergency Staff
RIMS	Response Information Management System
RMP	Risk Management Plan
RPU	Radiological Preparedness Unit (OES)
RRT	Regional Response Team
SAM	State Administrative Manual
SARA	Superfund Amendments & Reauthorization Act
SAVP	Safety Assessment Volunteer Program
SBA	Small Business Administration
SCO	California State Controller's Office
SEMS	Standardized Emergency Management System
SEPIC	State Emergency Public Information Committee
SLA	State and Local Assistance
SONGS	San Onofre Nuclear Generating Station
SOP	Standard Operating Procedure
SWEPC	Statewide Emergency Planning Committee
TEC	Travel Expense Claim
TRU	Transuranic
TTT	Train the Trainer
UPA	Unified Program Account
UPS	Uninterrupted Power Source
USAR	Urban Search and Rescue
USGS	United States Geological Survey

WC	California State Warning Center
WAN	Wide Area Network
WIPP	Waste Isolation Pilot Project

Appendix D
Glossary

Glossary

Acceleration	The rate of change of velocity with respect to time. Acceleration due to gravity at the earth's surface is 9.8 meters per second squared. That means that every second that something falls toward the surface of earth its velocity increases by 9.8 meters per second.
Asset	Any manmade or natural feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.
Base Flood	Flood that has a one percent probability of being equaled or exceeded in any given year. Also known as the 100-year flood.
Base Flood Elevation (BFE)	Elevation of the base flood in relation to a specified datum, such as the National Geodetic Vertical Datum of 1929. The Base Flood Elevation is used as the standard for the National Flood Insurance Program.
Bedrock	The solid rock that underlies loose material, such as soil, sand, clay, or gravel.
Building	A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.
Coastal High Hazard Area	Area, usually along an open coast, bay, or inlet that is subject to inundation by storm surge and, in some instances, wave action caused by storms or seismic sources.
Coastal Zones	The area along the shore where the ocean meets the land as the surface of the land rises above the ocean. This land/water interface includes barrier islands, estuaries, beaches, coastal wetlands, and land areas having direct drainage to the ocean.
Community Rating System (CRS)	An NFIP program that provides incentives for NFIP communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of policyholders in these communities are reduced.

Computer-Aided Design and Drafting (CADD)	A computerized system enabling quick and accurate electronic 2-D and 3-D drawings, topographic mapping, site plans, and profile/cross-section drawings.
Contour	A line of equal ground elevation on a topographic (contour) map.
Critical Facility	Facilities that are critical to the health and welfare of the population and that are especially important following hazard events. Critical facilities include, but are not limited to, shelters, police and fire stations, and hospitals.
Debris	The scattered remains of assets broken or destroyed in a hazard event. Debris caused by a wind or water hazard event can cause additional damage t other assets.
Digitize	To convert electronically points, lines, and area boundaries shown on maps into x, y coordinates (e.g., latitude and longitude, universal transverse mercator (UTM), or table coordinates) for use in computer applications.
Displacement Time	The average time (in days) which the building's occupants typically must operate from a temporary location while repairs are made to the original building due to damages resulting from a hazard event.
Duration	How long a hazard event lasts.
Earthquake	A sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of earth's tectonic plates.
Erosion	Wearing away of the land surface by detachment and movement of soil and rock fragments, during a flood or storm or over a period of years, through the action of wind, water, or other geologic processes.
Erosion Hazard Area	Area anticipated being lost to shoreline retreat over a given period of time. The projected inland extent of the area is measured by multiplying the average annual long-term recession rate by the number of years desired.
Essential Facility	Elements that are important to ensure a full recovery of a community or state following a hazard event. These would include: government functions, major employers, banks, schools, and certain commercial establishments, such as grocery stores, hardware stores, and gas stations.
Extent	The size of an area affected by a hazard or hazard event.

Extratropical Cyclone	Cyclonic storm events like Nor'easters and severe winter low-pressure systems. Both West and East coasts can experience these non-tropical storms that produce gale-force winds and precipitation in the form of heavy rain or snow. These cyclonic storms, commonly called Nor'easters on the East Coast because of the direction of the storm winds, and last for several days and can be very large – 1,000-mile wide storms are not uncommon.
Fault	A fracture in the continuity of a rock formation caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially parallel to the plane of fracture.
Federal Emergency Management Agency (FEMA)	Independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery.
Fire Potential Index (FPI)	Developed by USGS and USFS to assess and map fire hazard potential over broad areas. Based on such geographic information, national policy makers and on-the-ground fire managers established priorities for prevention activities in the defined area to reduce the risk of managed and wildfire ignition and spread. Prediction of fire hazard shortens the time between fire ignition and initial attack by enabling fire managers to pre-allocate and stage suppression forces to high fire risk areas.
Flash Flood	A flood event occurring with little or no warning where water levels rise at an extremely fast rate.
Flood	A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface water from any source, or (3) mudflows or the sudden collapse of shoreline land.
Flood Depth	Height of the flood water surface above the ground surface.
Flood Elevation	Elevation of the water surface above an established datum, e.g., National Geodetic Vertical Datum of 1929, North American Vertical Datum of 1988, or Mean Sea Level.
Flood Hazard Area	The area shown to be inundated by a flood of a given magnitude on a map.
Flood Insurance Rate Map (FIRM)	Map of a community, prepared by the Federal Emergency Management Agency that shows both the special flood hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS)	A study that provides an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations in a community or communities.
Floodplain	Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.
Frequency	A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a one percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered.
Fujita Scale of Tornado Intensity	Rates tornadoes with numeric values from F0 to F5 based on tornado wind speed and damage sustained. An F0 indicates minimal damage such as broken tree limbs or signs, while an F5 indicated severe damage sustained.
Functional Downtown	The average time (in days) during which a function (business or service) is unable to provide its services due to a hazard event.
Geographic Area Impacted	The physical area in which the effects of the hazard are experienced.
Geographic Information Systems (GIS)	A computer software application that relates physical features on the earth to a database to be used for mapping and analysis.
Ground Motion	The vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter, but soft soils can further amplify ground motions.
Hazard	A source of potential danger or adverse condition. Hazards in this how to series will include naturally occurring events such as floods, earthquakes, tornadoes, tsunami, coastal storms, landslides, and wildfires that strike populated areas. A natural event is a hazard when it has the potential to harm people or property.
Hazard Event	A specific occurrence of a particular type of hazard.
Hazard Identification	The process of identifying hazards that threaten an area.

Hazard Mitigation	Sustained actions taken to reduce or eliminate long-term risk from hazards and their effects.
Hazard Profile	A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability and extent. In most cases, a community can most easily use these descriptors when they are recorded and displayed as maps.
HAZUS (Hazards U.S.)	A GIS-based nationally standardized earthquake loss estimation tool developed by FEMA.
Hurricane	An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74-miles-per-hour or more and blow in a large spiral around a relatively calm center or “eye.” Hurricanes develop over the north Atlantic Ocean, northeast Pacific Ocean, or the South Pacific Ocean east of 160^{o}E longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
Hydrology	The science of dealing with the waters of the earth. A flood discharge is developed by a hydrologic study.
Infrastructure	Refers to the public services of a community that have a direct impact on the quality of life. Infrastructure includes communication technology such as phone lines or Internet access, vital services such as public water supplies and sewer treatment facilities, and includes an area’s transportation system such as airports, heliports; highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots; and waterways, canals, locks, seaports, ferries, harbors, dry-docks, piers and regional dams.
Intensity	A measure of the effects of a hazard event at a particular place.
Landslide	Downward movement of a slope and materials under the force of gravity.
Lateral Spreads	Develop on gentle slopes and entail the sidelong movement of large masses of soil as an underlying layer liquefies in a seismic event. The phenomenon that occurs when ground shaking causes loose soils to lose strength and act like viscous fluid. Liquefaction causes two types of ground failure: lateral spread and loss of bearing strength.
Liquefaction	Results when the soil supporting structures liquefies. This can cause structures to tip and topple.
Lowest Floor	Under the NFIP, the lowest floor of the lowest enclosed area (including basement) of a structure.

Magnitude	A measure of the strength of a hazard event. The magnitude (also referred to as severity) of a given hazard event is usually determined using technical measures specific to the hazard.
Mitigation Plan	A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in the state and includes a description of actions to minimize future vulnerability to hazards.
National Flood Insurance Program (NFIP)	Federal program created by Congress in 1968 that makes flood insurance available in communities that enact minimum floodplain management regulations in FEMA Interim Final Rule 44 CFR §60.3.
National Geodetic Vertical Datum of 1929 (NGVD)	Datum established in 1929 and used in the NFIP as a basis for measuring flood, ground, and structural elevations, previously referred to as Sea Level Datum or Mean Sea Level. The Base Flood Elevations shown on most of the Flood Insurance Rate Maps issued by the Federal Emergency Management Agency are referenced to NGVD.
National Weather Service (NWS)	Prepares and issues flood, severe weather, and coastal storm warnings and can provide technical assistance to federal and state entities in preparing weather and flood warning plans.
Nor'easter	An extra-tropical cyclone producing gale-force winds and precipitation in the form of heavy snow or rain.
Outflow	Follows water inundation creating strong currents that rip at structures and pound them with debris, and erode beaches and coastal structures.
Planimetric	Describes maps that indicate only man-made features like buildings.
Planning	The act or process of making or carrying out plans; the establishment of goals, policies and procedures for a social or economic unit.
Probability	A statistical measure of the likelihood that a hazard event will occur.
Recurrence Interval	The time between hazard events of similar size in a given location. It is based on the probability that the given event will be equaled or exceeded in any given year.
Repetitive Loss Property	A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least $1,000 each have been paid within any 10-year period since 1978.
Replacement Value	The cost of rebuilding a structure. This is usually expressed in terms of cost per square foot, and reflects the present-day cost of labor and materials to construct a building of a particular size, type and quality.

Richter Scale	A numerical scale of earthquake magnitude devised by seismologist C.F. Richter in 1935.
Risk	The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.
Riverine	Of or produced by a river.
Scale	A proportion used in determining a dimensional relationship; the ratio of the distance between two points on a map and the actual distance between the two points on he earth's surface.
Scarp	A steep slope.
Scour	Removal of soil or fill material by the flow of flood waters. The term is frequently used to describe storm-induced, localized conical erosion around pilings and other foundation supports where the obstruction of flow increases turbulence.
Seismicity	Describes the likelihood of an area being subject to earthquakes.
Special Flood Hazard Area (SFHA)	An area within a floodplain having a one percent or greater chance of flood occurrence in any given year (100-year floodplain); represented on Flood Insurance Rate Maps by darkly shaded areas with zone designations that include the latter A or V.
Stafford Act	The Robert T. Stafford Disaster Relief and Emergency Assistant Act, PL 100-107 was signed into Law November 23, 1988 and amended the Disaster Relief Act of 1974, PL 93-288. The Stafford Act is the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and its programs.
State Hazard Mitigation Officer (SHMO)	The representative of state government who is the primary point of contact with FEMA, other state and Federal agencies, and local unit of government in the planning and implementation of pre- and post-disaster mitigation activities.
Storm Surge	Rise in the water surface above normal water level on the open coast due to the action of wind stress and atmospheric pressure on the water surface.
Structure	Something constructed. (See also Building)

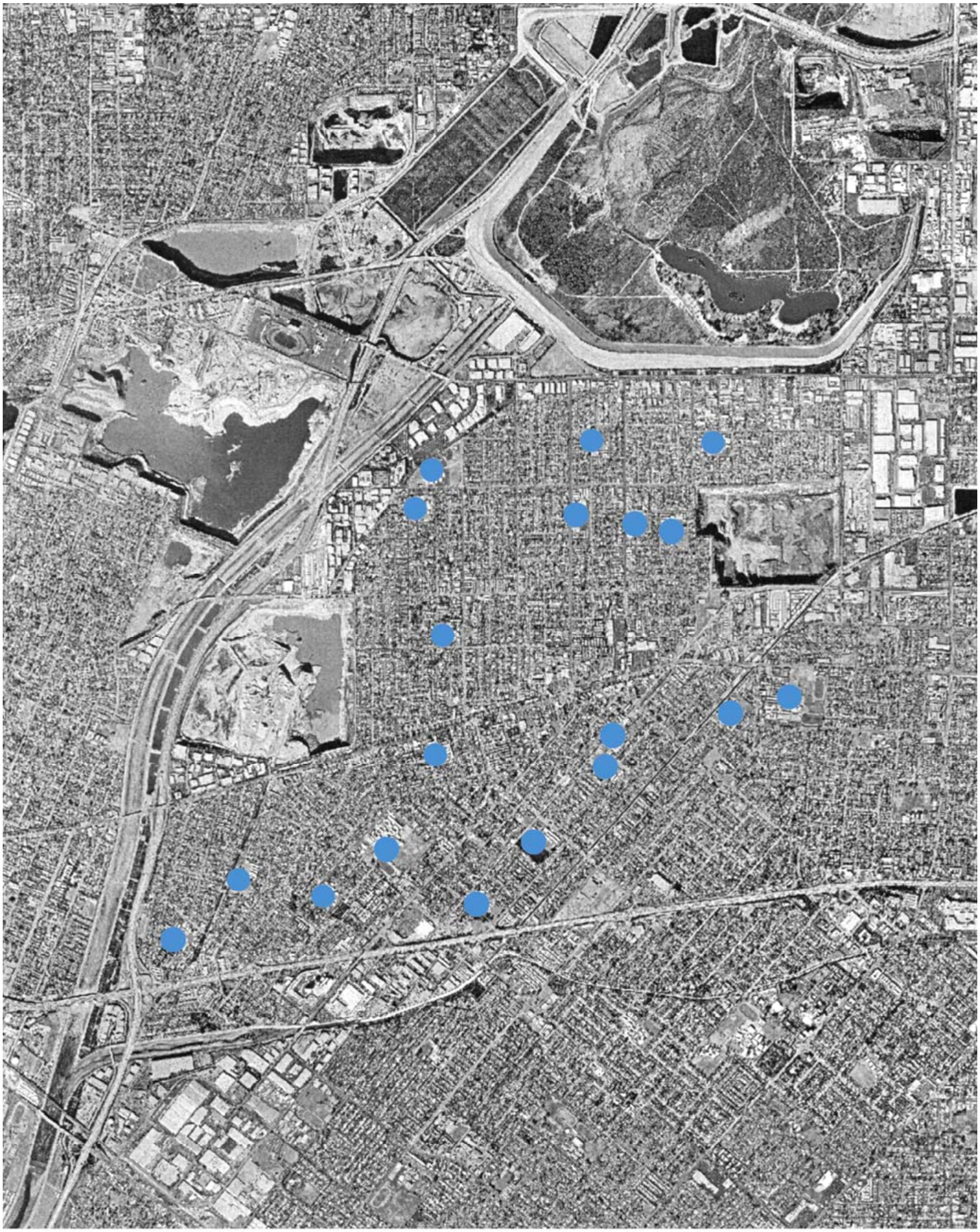
Substantial Damage	Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage.
Super Typhoon	A typhoon with maximum sustained winds of 150 mph or more.
Surface Faulting	The differential movement of two sides of a fracture – in other words, the location where the ground breaks apart. The length, width, and displacement of the ground characterize surface faults.
Tectonic Plate	Torsionally rigid, thin segments of the earth's lithosphere that may be assumed to move horizontally and adjoin other plates. It is the friction between plate boundaries that cause seismic activity.
Topographic	Characterizes maps that show natural features and indicate the physical shape of the land using contour lines. These maps may also include man-made features.
Tornado	A violently rotating column of air extending from a thunderstorm to the ground.
Tropical Cyclone	A generic term for a cyclonic, low-pressure system over tropical or sub-tropical waters.
Tropical Depression	A tropical cyclone with maximum sustained winds of less than 39 mph.
Tropical Storm	A tropical cyclone with maximum sustained winds greater than 39 mph and less than 74 mph.
Tsunami	Great sea wave produced by submarine earth movement or volcanic eruption.
Typhoon	A special category of tropical cyclone peculiar to the western North Pacific Basin, frequently affecting areas in the vicinity of Guam and the North Mariana Islands. Typhoons whose maximum sustained winds attain or exceed 150 mph are called super typhoons.

Vulnerability	Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power – if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.
Vulnerability Assessment	The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.
Water Displacement	When a large mass of earth on the ocean bottom sinks or uplifts, the column of water directly above it is displaced, forming the tsunami wave. The rate of displacement, motion of the ocean floor at the epicenter, the amount of displacement of the rupture zone, and the depth of water above the rupture zone all contribute to the intensity of the tsunami.
Wave Run-up	The height that the wave extends up to on steep shorelines, measured above a reference level (the normal height of the sea, corrected to the state of the tide at the time of wave arrival).
Wildfire	An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.
Zone	A geographical area shown on a Flood Insurance Rate Map (FIRM) that reflects the severity or type of flooding in the area.

Appendix E
List of Maps

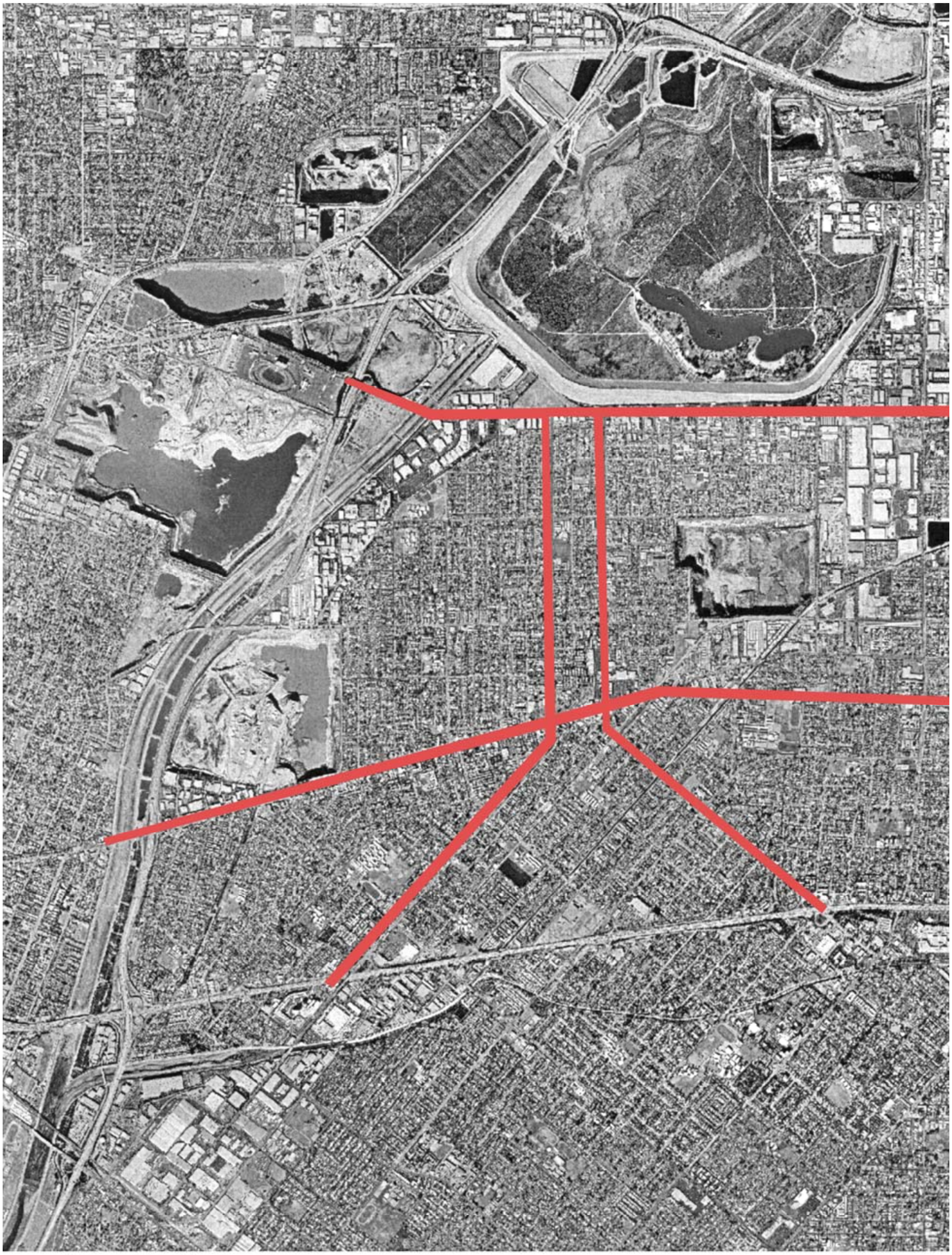
Map 1
Baldwin Park Unified School District
Location

Map 2
Baldwin Park Unified School District
School Sites



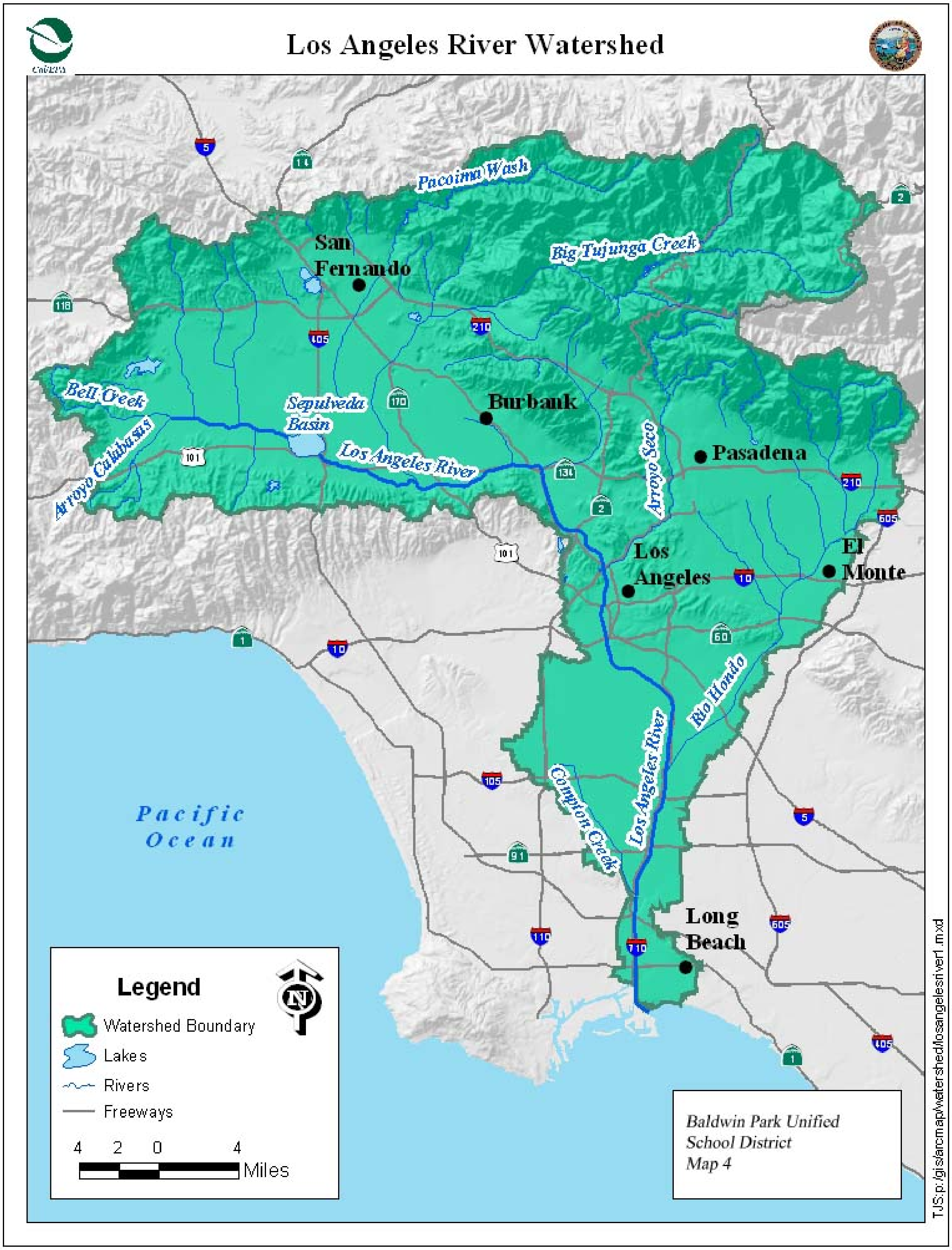
School Sites

Map 3
Baldwin Park Unified School District
Evacuation Routes



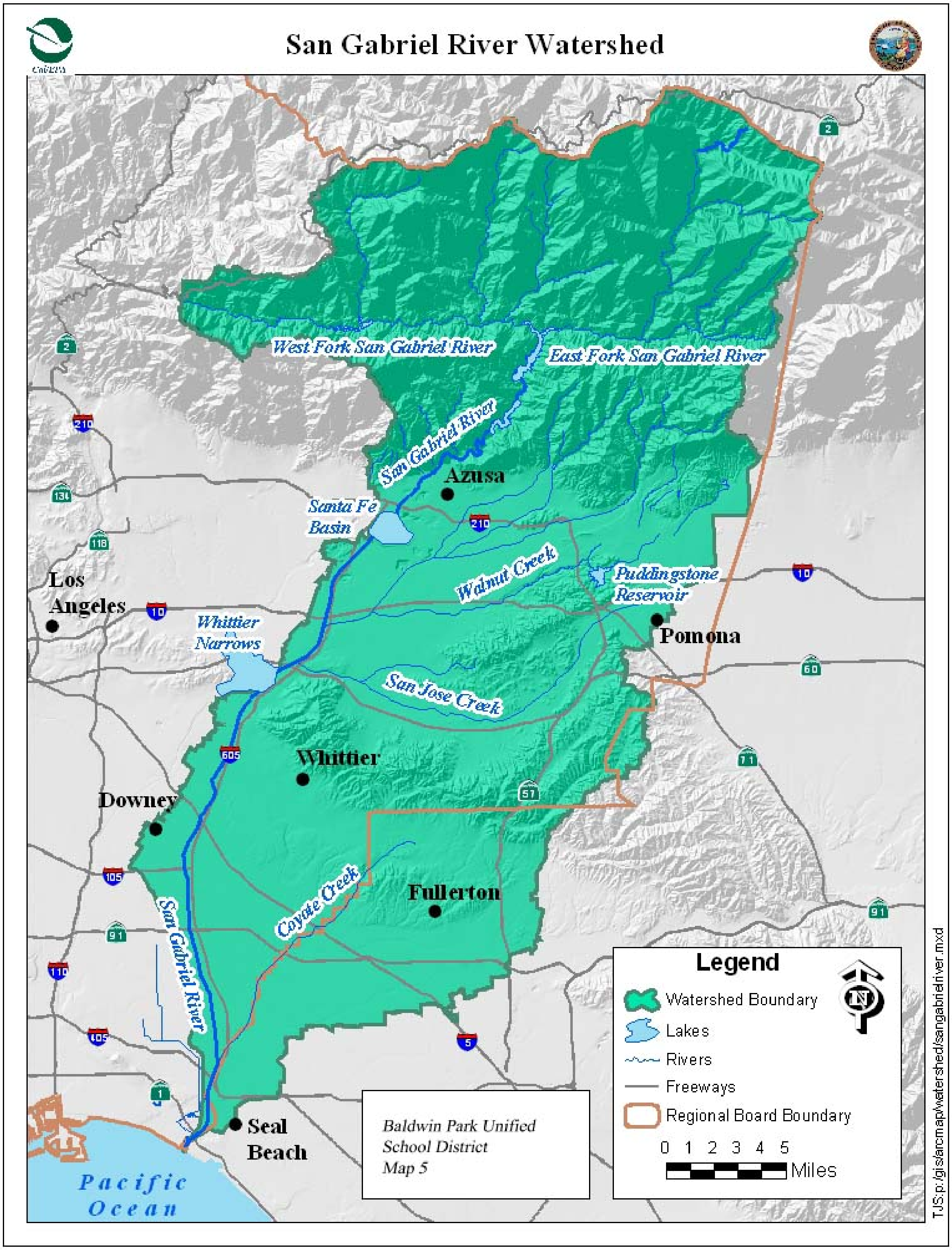
Evacuation Routes

Map 4
Los Angeles River Watershed

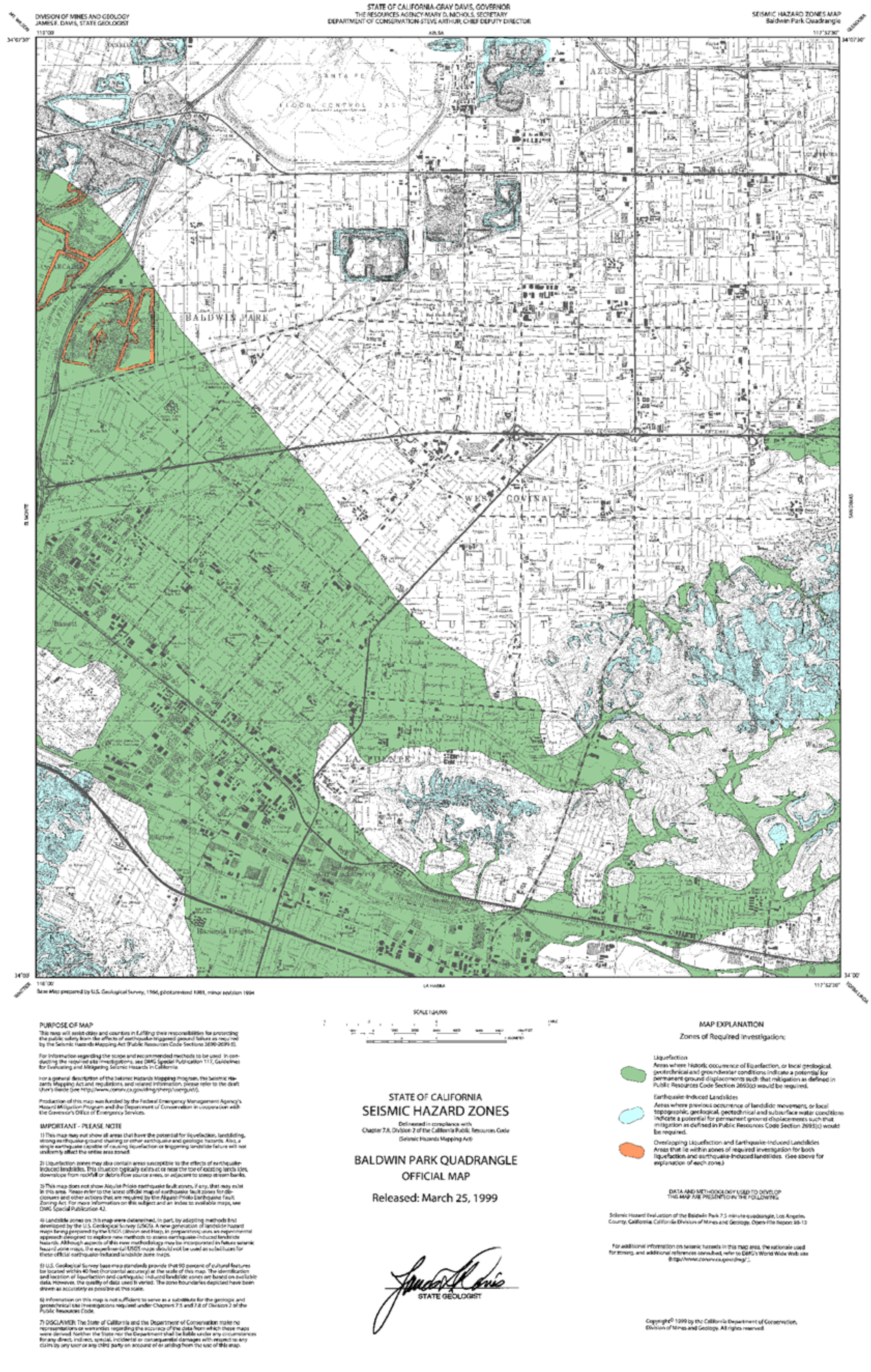


Los Angeles River Watershed
Pacoima Wash
Big Tujunga Creek
San Fernando
Bell Creek
Sepulveda Basin
Burbank
Los Angeles River
Arroyo Calabasas
Arroyo Seco
Pasadena
Los Angeles
El Monte
Rio Hondo
Compton Creek
Los Angeles River
Long Beach
Pacific Ocean
Legend
Watershed Boundary
Lakes
Rivers
Freeways
4 2 0 4
Miles
Baldwin Park Unified School District Map 4
TJS:p:/gis/arcmap/watershed/losangelesriver1.mxd

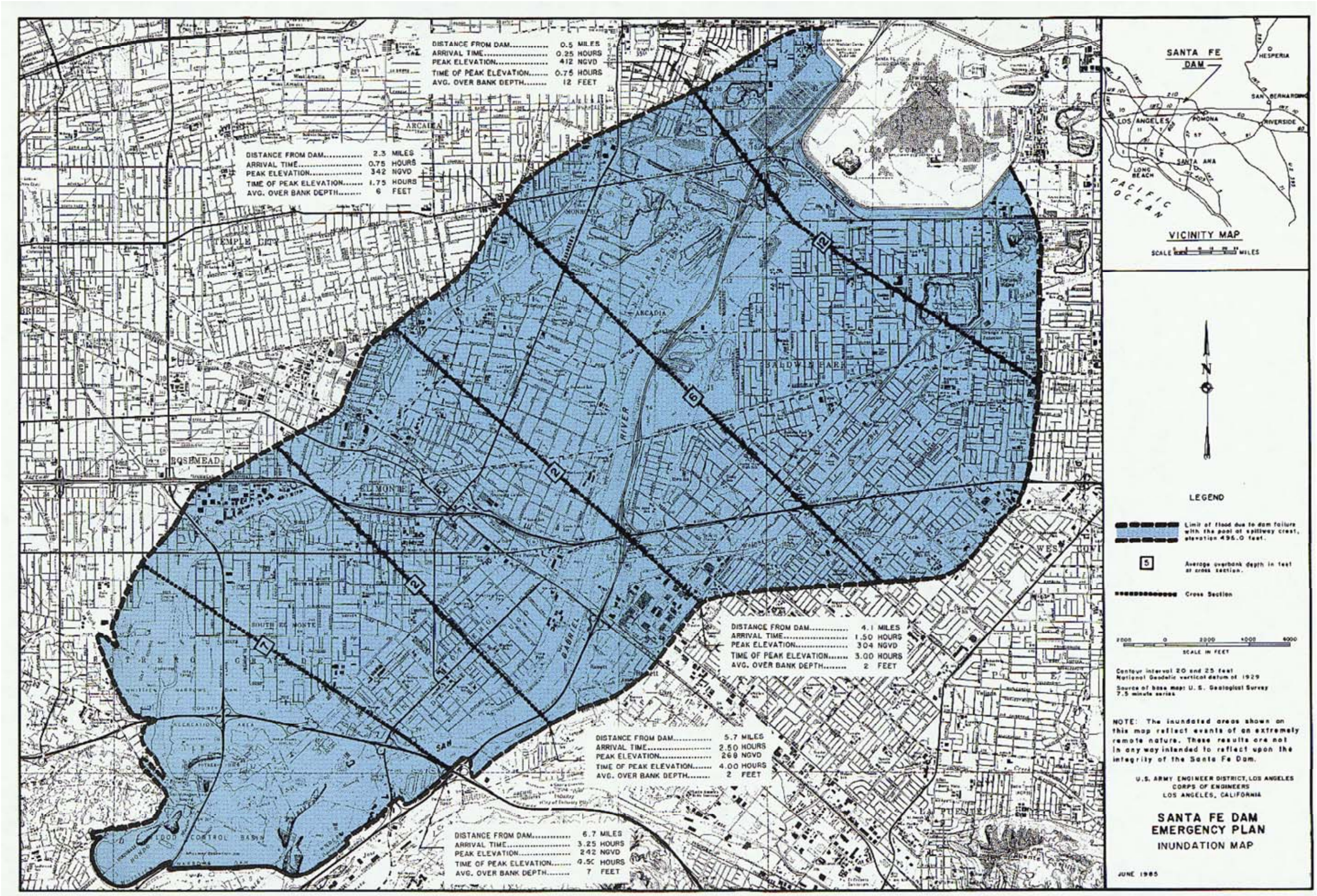
Map 5
San Gabriel River Watershed


San Gabriel River Watershed
West Fork San Gabriel River
East Fork San Gabriel River
San Gabriel River
Azusa
Santa Fe Basin
Walnut Creek
Puddingstone Reservoir
Los Angeles
Whittier Narrows
Pomona
San Jose Creek
Whittier
Downey
Coyote Creek
Fullerton
San Gabriel River
Seal Beach
Pacific Ocean
Baldwin Park Unified School District Map 5
Legend
Watershed Boundary
Lakes
Rivers
Freeways
Regional Board Boundary
0 1 2 3 4 5
Miles
TJS:p:/gis/arcmap/watershed/sangabrielriver.mxd

Map 6
Liquefaction Zone
Baldwin Park Quadrangle


DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
STATE OF CALIFORNIA-GRAY DAVIS, GOVERNOR
THE RESOURCES AGENCY-MARY D. NICHOLS, SECRETARY
DEPARTMENT OF CONSERVATION-STEVE ARTHUR, CHIEF DEPUTY DIRECTOR
SEISMIC HAZARD ZONES MAP
Baldwin Park Quadrangle
BALDWIN PARK
WEST COVINA
COVINA
STATE OF CALIFORNIA
SEISMIC HAZARD ZONES
Delineated in compliance with
Chapter 7.8, Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)
BALDWIN PARK QUADRANGLE
OFFICIAL MAP
Released: March 25, 1999
STATE GEOLOGIST
MAP EXPLANATION
Zones of Required Investigation:
Liquefaction
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
Earthquake-Induced Landslides
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
Overlapping Liquefaction and Earthquake-Induced Landslides
Areas that lie within zones of required investigation for both liquefaction and earthquake-induced landslides. (See above for explanation of each zone.)
PURPOSE OF MAP
IMPORTANT - PLEASE NOTE

Map 7
Flood Inundation
Santa Fe Dam



Flood Inundation Santa Fe Dam
Map 7

Appendix F
School Site Non-Structural Action Item List

IDENTIFIED HAZARD #1	**Unsecured contents may fall off shelves used to store chemicals**
WHAT COULD HAPPEN	• Contents could strike nearby occupants • Contents could release dangerous chemicals or cause a hazardous reaction to occur.
ACTION TO BE TAKEN	• Install wood or Plexiglas strips across open face of shelves. • Shelves must be secured. • Install shelf with a lip to prevent objects from falling. • Relocate heavy items or volatile chemicals to floor mounted cabinets when possible.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #2	**Unsecured wall-mounted cabinets, lockers and metal storage cabinets.**
WHAT COULD HAPPEN	• Contents could strike nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	• For single unit, secure each unit to wall studs or blocking with screws. • For multiple units, fasten each unit to a clip angle with metal screws. Fasten clip angle to wall studs or blocking with screws. • Relocate cabinets, lockers, or metal storage cabinets away from hallways and exit ways.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #3	**Unsecured aquariums or terrariums.**
WHAT COULD HAPPEN	• Aquariums or terrariums could fall striking nearby occupants. • Aquariums or terrariums could fall and block hallways and exit areas.
ACTION TO BE TAKEN	• Fasten clip angle to tabletop against each side of the unit. • Locate these units away from doors and exit ways.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #4	**Unsecured ceiling-height interior walls.**
WHAT COULD HAPPEN	• Damage pipes and electrical wiring. • Wall may fall and could strike nearby occupants. • Wall may fall and could block hallways and exit areas.
ACTION TO BE TAKEN	• Secure ceiling-height walls with diagonal bracing. • Consult a qualified architect or structural engineer for seismic requirements. • Walls are usually not fire-rated.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #5	**Unsecured TV monitors or speakers.**
WHAT COULD HAPPEN	• Units may fall off the mounting brackets, striking occupants below. • Units could block exit ways for evacuation during an emergency. • A fallen unit may damage electrical wirings, exposing nearby occupants to electrical shock or start a fire.
ACTION TO BE TAKEN	• Secure each TV or monitor to mounting bracket with adjustable straps. • Follow the recommendation provided by the manufacturer for mounting bracket for TV, monitors or speakers. • Locate units mounting brackets away from doors or exit ways. • Consider using a pre-approved mounting bracket from the Office of Statewide Health Planning and Development (OSHPD). • Consult a qualified architect or structural engineer for seismic bracing requirements.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #6	**Unsecured wall hung items such as pictures, decorations or signs.**
WHAT COULD HAPPEN	• Contents could strike nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	• Install hook into wall stud. Close hook with pliers after hanging item. • Alternatively, use hook with closed loop or spring-back retention bar. • Use specialized earthquake hooks (Hook™ brand) that retain wire hung items. • Do not hang an item that weighs more than recommended by the hook manufacturer.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #7	**Unsecured fire extinguishers.**
WHAT COULD HAPPEN	• Unit may fall off wall and damage the shut-off valve or hose, releasing its content. • Unit could strike nearby occupants. • A damaged fire extinguisher may not be functional in an emergency.
ACTION TO BE TAKEN	• Secure fire extinguisher mounting bracket or cabinet to wall framing. • Retention straps can be used for further security. • Cabinets must be accessible either through breakable glass or latched door.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #8	**Glass windows and doors at entryways.**
WHAT COULD HAPPEN	• Glass may gall or shatter injuring nearby occupants. • Fallen glass could block doors and exits during an emergency.
ACTION TO BE TAKEN	• Replace glass on door and glass surrounding the door with safety glazing (glass) or safety film. • Safety glass has permanent identification label etched or ceramic fired on the glass and readable from the inside of the building.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #9	**Unsecured free standing and cubical partitions.**
WHAT COULD HAPPEN	• Cubical partitions could strike nearby occupants. • Fallen cubical partitions could block hallways and exit areas.
ACTION TO BE TAKEN	• Screw clip angle to intermediate and end panels at each end. • Secure clip angle to concrete floor with concrete drill-in anchor bolt at each leg. Lag bolt must be installed into floor joists or blocking. • Clip angle must be screwed into the metal frame portion of the cubical partition. • Maximum distance between intermediate or end panels is 10 feet. • Panel joint must be rigid. • If panels are hinged together or joints were not rigid, reinforce the top with steel flat plate across the joint and secure the bottom with clip angle.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #10	**Unsecured file cabinets.**
WHAT COULD HAPPEN	• File cabinets could fall over striking nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	• When the cabinet depth or width is less than two-thirds the height, the cabinet should be secured to an adjacent wall or fastened to adjacent cabinets. • Cabinets should have latching drawers. • Heavier contents should be stored in lower drawers of a file cabinet. • Locate cabinets away from exits and hallways. • Metal clips should be provided for attachments at cabinets and at walls. • Metal clip attachments at the wall should utilize screws that are properly installed into wall studs or blocking.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #11	**Unsecured bookcases 6 feet or more in height.**
WHAT COULD HAPPEN	• Bookcases could fall over striking nearby occupants. • Bookcases could block hallways and exit areas.
ACTION TO BE TAKEN	• Install cross bracing in back of bookcases. Use cable or metal strap for bracing. • If bookcases were located back-to-back, tie them together with steel plates. • Secure bookcases to wall or floor using clip angles. • Alternatively, secure bookcases with anti-tip struts at top. • For bookcases standing next to a wall, secure them to wall framing with clip angles. • Relocate heavy books to lower levels.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #12	**Unsecured bookcases less than 6 feet in height.**
WHAT COULD HAPPEN	• Bookcases could fall over striking nearby occupants. • Bookcases could block hallways and exit areas.
ACTION TO BE TAKEN	• Tie back-to-back bookcases together with clips and bolts or screws. • Fasten bookcases to floor if the length or combined width is less than two-thirds the height to prevent tipping over. • Fasten isolated bookcases to floor or wall. • Relocate heavy books to lower levels.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #13	**Unsecured desktop/countertop equipment.**
WHAT COULD HAPPEN	• Equipment could fall off desk or countertop striking nearby occupants. • Fallen desktop equipment may damage electric wiring, causing power interruption, electrical shock to nearby occupants or fire.
ACTION TO BE TAKEN	• Secure with heavy-duty hook-and-loop fasteners. Attach self-adhering hook-and-loop pads to base of desktop equipment case and the matting pads to desktop. • Secure with cable with self-adhering anchor pads to equipment and desktop. • Relocate desktop to heavy equipment away from doors and exit ways. • Consult a qualified structural engineer or architect for heavy countertop equipment.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #14	**Unsecured equipment on carts.**
WHAT COULD HAPPEN	• Equipment may fall off cart or topple cart striking nearby occupants.
ACTION TO BE TAKEN	• Secure equipment to cart with adjustable straps. Tighten strap to remove any slack. • Relocate carts away from doors and exit ways. • Cart should have locking wheels or casters. • If the height of the cart exceeds two-thirds the depth or width of the cart, secure the cart to the wall with rope, chain or cable. Rope, chain or cable should be attached to eyebolts or other closed loop fasteners, which should be installed into wall studs or blocking.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #15	**Unsecured display cases/art objects.**
WHAT COULD HAPPEN	• School awards, trophies and art objects could fall striking nearby occupants. • School awards, trophies and art objects could fall and block hallways and exit areas.
ACTION TO BE TAKEN	• Secure display case to floor. Shelves in display case must also be secured. • Use angle bracket if needed. • Secure contents to shelves using hook-and-loop or museum was or a combination of both. • Consult a qualified structural engineer or architect for heavy countertop equipment.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #16	**Unsecured equipment on wheels.**
WHAT COULD HAPPEN	• Wheel-mounted furniture may roll or fall striking nearby occupants. • Wheel-mounted furniture may roll or fall blocking doors and exit ways for evacuation during an emergency.
ACTION TO BE TAKEN	• Install eyescrews to wall and secure furniture to eyescrews with cable, chain or rope. • Replace free rolling wheels with lockable wheels. • If wheels are not lockable, install eyescrews to floor and secure furniture to eyescrews with cable, chain or rope. • Eyescrews must be installed into wall studs or blocking.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #17	**Unsecured office equipment.**
WHAT COULD HAPPEN	• Office equipment may fall striking nearby occupants. • Fallen office equipment may damage electric wiring, exposing occupants to electrical shock or start a fire.
ACTION TO BE TAKEN	• Secure office equipment to the floor. • Use concrete drill-in anchor bolts for concrete floor. • Use lag bolts for wood floor. Install them into floor beams or blocking. • Bolts must be installed through metal framing of office equipment. Do not install through thin gauge housing panels. • If clip angles are used, attach clip angle to metal framing of the equipment. Do not attach to thin gauge housing panels.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #18	**Unsecured refrigerators and vending machines.**
WHAT COULD HAPPEN	• Refrigerators and vending machines may fall striking nearby occupants. • Refrigerators and vending machines may damage electric wiring, exposing occupants to electrical shock or start a fire. • Refrigerators and vending machines could fall and block hallways and exit areas.
ACTION TO BE TAKEN	• Secure refrigerators and vending machines to floor with slotted z-clips or clip angles. • Slotted z-clip must have a minimum of two bolts to the floor. • Relocate refrigerators and vending machines away from doors and exit ways.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #19	**Unsecured shop/gym equipment.**
WHAT COULD HAPPEN	• Shop or gym equipment may fall striking nearby occupants. • Shop or gym equipment could fall and block hallways and exit areas.
ACTION TO BE TAKEN	• Secure shop or gym equipment to concrete floor with concrete drill-in anchor bolt at each leg. • Secure shop or gym equipment to wood floor with a lag bolt at each leg. Lag bolt must be installed into floor joists or blocking. • When clip angle is required, screw angle to equipment and fasten to floor with either concrete drill-in anchor or lag bolts.
TIMELINE	• Ongoing

IDENTIFIED HAZARD #20	**Unsecured gas cylinders/tanks.**
WHAT COULD HAPPEN	• Gas cylinders or tanks may fall over and damage the shut-off valve, releasing hazardous or flammable contents. • A cylinder with a damaged shut-off valve may result in the tank or valve becoming a projectile. • Cylinders may fall over, striking or rolling and striking nearby occupants.
ACTION TO BE TAKEN	• Secure each cylinder or tank to a wall with two restraints. • Alternatively, to providing wall restraints, cylinders or tanks may be kept within a storage rack or compartment that is secured to a wall or floor. • Store gas cylinders or tanks in non-occupied areas, and away from exit routes or exit doors. • Chain, cable or rope restraints must be attached to eyebolts or other closed hook structural fasteners. • Eyebolts or other fasteners must be attached to wall framing (studs or blocking).
TIMELINE	• Ongoing

IDENTIFIED HAZARD #22	Unsecured water heaters.
WHAT COULD HAPPEN	• Plumbing equipment or water heaters may slide or fall striking nearby occupants. • Plumbing equipment or water heaters may slide or fall spilling hot water on floor or nearby occupants, or rupture gas lines.
ACTION TO BE TAKEN	• Secure base of water heater by bolting to floor. • Secure water heater to wall with plumber's tapes, or other methods recommended by the Department of General Services – Division of the State Architect (DSA). • Use concrete drill-in anchor bolts for concrete floor and wall. • Use lag bolts for wood floor and wall. Lag bolts must be installed into floor beams, wall studs or blocking. • When clip angle is required, screw angle to equipment and fasten to floor with either concrete drill-in anchor or lag bolts. • Space between wall and water heater must be shimmed tight with non-combustible material at the locations of the plumber's tape. • Consult a qualified architect or professional engineer for seismic anchorage requirements.
TIMELINE	• Ongoing.

IDENTIFIED HAZARD #22	Gas Shut-off Valves.
WHAT COULD HAPPEN	• When an earthquake of significant magnitude occurs, gas lines may rupture, release natural gas and ignite to cause fires and explosions.
ACTION TO BE TAKEN	• Install natural gas earthquake automatic shut-off valves at all District sites.
TIMELINE	• Ongoing.

Appendix G
School Structures and Contents Replacement Values

Property and Contents Replacement Values as of January 31, 2000

School District: **Baldwin Park Unified School District**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)	Functional Use or Value ($100.00 per square foot)
Bursch Elementary School	VRM*	X	X	X	X		46,065	$4,623,360	TBD	TBD	$4,606,500
Central School	VRM*	X	X	X	X		55,222	$5,170,810	TBD	TBD	$5,522,200
De Anza School	VRM*	X	X	X	X		56,887	$5,159,573	TBD	TBD	$5,688,700
Elwin Elementary School	VRM*	X	X	X	X		25,311	$2,442,200	TBD	TBD	$2,531,100
Ernest R. Geddes School	VRM*	X	X	X	X		50,975	$5,093,800	TBD	TBD	$5,097,500
Heath Elementary School	VRM*	X	X	X	X		40,295	$3,891,996	TBD	TBD	$4,029,500
Kenmore School	VRM*	X	X	X	X		46,620	$4,815,306	TBD	TBD	$4,662,000
Pleasant View School	VRM*	X	X	X	X		44,033	$4,374,000	TBD	TBD	$4,403,300
Vineland School	VRM*	X	X	X	X		47,126	$5,114,580	TBD	TBD	$4,712,600
Foster School	VRM*	X	X	X	X		46,236	$5,090,392	TBD	TBD	$4,623,600
Walnut Elementary School	VRM*	X	X	X	X		52,051	$5,504,800	TBD	TBD	$5,205,100
Tracy School	VRM*	X	X	X	X		49,645	$5,786,256	TBD	TBD	$4,964,500 $1,222,800
Santa Fe School	VRM*	X	X	X	X		13,440	$770,520	TBD	TBD	$1,344,000
Childrens Center	VRM*	X	X	X	X		12,228	$1,269,280	TBD	TBD	$1,222,800

School District: **Baldwin Park Unified School District**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)	Functional Use or Value ($100.00 per square foot)
Publication/Food Services	VRM*	X	X	X	X		5,023	$552,530	TBD	TBD	$502,300
Charles D. Jones Junior High School	VRM*	X	X	X	X		51,766	$5,797,860	TBD	TBD	$5,176,600
Jerry D. Holland Junior High School	VRM*	X	X	X	X		50,882	$5,961,302	TBD	TBD	$5,088,200
Sierra Vista Junior High School	VRM*	X	X	X	X		24,831	$2,774,630	TBD	TBD	$2,483,100
Olive Junior High School	VRM*	X	X	X	X		45,751	$5,620,200	TBD	TBD	$4,575,100
Sierra Vista High School	VRM*	X	X	X	X		136,703	$15,712,600	TBD	TBD	$13,670,300
Baldwin Park High School	VRM*	X	X	X	X		152,322	$18,175,860	TBD	TBD	$15,232,200
North Park High School	VRM*	X	X	X	X		14,774	$1,081,660	TBD	TBD	$1,477,400
Adult Career Training Center	VRM*	X	X	X	X		51,895	$7,278,900	TBD	TBD	$5,189,500
Adult Education Center	VRM*	X	X	X	X		16,950	$962,200	TBD	TBD	$1,695,000
Adult Education – Badillo Annex	VRM*	X	X	X	X		3,832	$487,000	TBD	TBD	$383,200
Adult Education – Kenmore Annex	VRM*	X	X	X	X		3,421	$434,467	TBD	TBD	$342,100
Adult Education – Santa Fe	VRM*	X	X	X	X		1,287	$76,420	TBD	TBD	$128,700
Headstart/Bilingual Office	VRM*	X	X	X	X		1,855	$194,500	TBD	TBD	$185,500
District Office	VRM*	X	X	X	X		10,721	$1,179,310	TBD	TBD	$1,072,100
Associate Superintendent – Business Services	VRM*	X	X	X	X		4,517	$497,000	TBD	TBD	$451,700
District Warehouse	VRM*	X	X	X	X		15,593	$961,700	TBD	TBD	$1,559,300

School District: **Baldwin Park Unified School District**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)	Functional Use or Value ($100.00 per square foot)
Data Processing Office	VRM*	X	X	X	X		2,077	$228,470	TBD	TBD	$207,700
Pupil Services Department	VRM*	X	X	X	X		960	$58,000	TBD	TBD	$96,000
Elementary Education	VRM*	X	X	X	X		3,591	$384,300	TBD	TBD	$359,100
Operations (Grounds)	VRM*	X	X	X	X		7,443	$648,226	TBD	TBD	$744,300
Maintenance Building	VRM*	X	X	X	X		3,342	$346,600	TBD	TBD	$334,200
Carpenters Shop/Transportation Shop	VRM*	X	X	X	X		5,487	$575,300	TBD	TBD	$548,700
Police Office	VRM*	X	X	X	X		864	$52,200	TBD	TBD	$86,400
District Shop Building	VRM*	X	X	X	X		457	$58,000	TBD	TBD	$45,700

** Valuation Resource Management, Inc. has provided the above data for the Baldwin Park Unified School District.*
***Data has been provided by Baldwin Park Unified School District.*

Appendix H
STAPLEE Analysis of
Proposed Mitigation Strategies

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District			**Contact:**	Captain Stephen Bayne		
Project Title	Integrate goals and action items			**Phone:**	(626) 856-4531		
Agency:	BPUSD			**E-mail:**	srbayne236@bpusd.net		
Hazard(s):	Earthquake; Flooding; Severe Weather						
Critical Facility/Population At Risk:		Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness					
Environmental Impact:				**Historic Preservation Impact:**			
High		Medium	X	High		Medium	
Low				Low	X		
Importance to Protection of Life/Property and Disaster Recovery:				**Risk of Hazard Impact:**			
High	X	Medium		High		Medium	X
Low				Low			
Estimated Cost:				**Project Duration:**	Ongoing		
Value of Facility:	Appendix G			**Value of Contents:**	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time available from BPUSD staff						
Project Objectives:	Integrate the goals and action items from the BPUSD Natural Hazard Mitigation Plan into existing regulatory documents and programs where appropriate.						
Project Description:	Partnerships and Implementation						
Proposal Date:	Short Term Activity defined as one to two years.						

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Will work aggressively with other agencies to promote sound mitigation concepts at all levels.
	Adversely Affects Segments of the Population Limited; Score: 2	No significant impact to our service population
Technical	Technical Feasibility Yes; Score: 3	
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	Understand the importance of fostering strong, proactive working relationships
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	
Legal	Authority Yes, Score: 2	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 1	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 1	
	Outside Funding Required Potentially, Score: 1	

Evaluation Category	Considerations	Comments
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 3	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 34	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District	**Contact:**	Captain Stephen Bayne
Project Title:	Identify and pursue funding opportunities to promote hazard mitigation.	**Phone:**	(626) 856-4531
Agency:	BPUSD	**E-mail:**	srbayne236@bpusd.net
Hazard(s):	Earthquake; Flooding; Severe Weather		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		

Environmental Impact:						**Historic Preservation Impact:**					
High		Medium	X	Low		High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery						**Risk of Hazard Impact:**					
High	X	Medium		Low		High		Medium	X	Low	

Estimated Cost:		**Project Duration:**	Ongoing
Value of Facility:	Appendix G	**Value of Contents:**	Appendix G
Source(s) of Financing:	Internal Funding; Limited to time available from BPUSD staff		
Project Objectives:	Identify and pursue funding opportunities to develop and implement District Mitigation Activities.		
Project Description:	Identify Funding Opportunities		
Proposal Date:	Immediate and ongoing		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Partner with other organizations and agencies in the City of Baldwin Park to identify grant programs and foundations that may support mitigation activities.
	Adversely Affects Segments of the Population Limited; Score: 3	No significant impact to our service population.
Technical	Technical Feasibility Yes; Score: 3	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 3	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	

Evaluation Category	Considerations	Comments
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District			**Contact:**	Captain Stephen Bayne		
Project Title	Mitigation Process Oversight and Control.			**Phone:**	(626) 856-4531		
Agency:	BPUSD			**E-mail:**	srbayne236@bpusd.net		
Hazard(s):	Earthquake; Flooding; Severe Weather.						
Critical Facility/Population At Risk:		Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness					
Environmental Impact:				**Historic Preservation Impact:**			
High		Medium	X	Low		High	
				Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery:				**Risk of Hazard Impact:**			
High	X	Medium		Low		High	
				Medium	X	Low	
Estimated Cost:				**Project Duration:**	Ongoing		
Value of Facility:	Appendix G			**Value of Contents:**	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time and resources available from BPUSD staff.						
Project Objectives:	Develop a sustainable process for implementing, monitoring and evaluating.						
Project Description:	Coordination and implementation of District Mitigation Activities.						
Proposal Date:	Immediate and ongoing.						

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Establish clear roles for participants, meeting regularly to pursue and evaluate implementation strategies. .
	Adversely Affects Segments of the Population Limited; Score: 3	Monitor hazard mitigation implementation by school site through surveys and other reporting methods.
Technical	Technical Feasibility Yes; Score: 3	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 3	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Establish measurable standards to evaluate mitigation policies and provide a mechanism to update and revise the mitigation plan.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District	**Contact:**	Captain Stephen Bayne
Project Title:	Public Awareness, Protect Life and Property	**Phone:**	(626) 856-4531
Agency:	BPUSD	**E-mail:**	srbayne236@bpusd.net
Hazard(s):	Earthquake; Flooding; Severe Weather.		

Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness

Environmental Impact:						**Historic Preservation Impact:**					
High		Medium	X	Low		High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery:						**Risk of Hazard Impact:**					
High		Medium	X	Low		High		Medium	X	Low	

Estimated Cost:		**Project Duration:**	Ongoing
Value of Facility:	Appendix G	**Value of Contents:**	Appendix G

Source(s) of Financing:	Internal Funding; Limited to time and resources available from BPUSD staff.
Project Objectives:	Develop public and private relationships to foster natural hazard mitigation program coordination and collaboration in the BPUSD.
Project Description:	Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.
Proposal Date:	Immediate and ongoing.

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Make the BPUSD Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web.
	Adversely Affects Segments of the Population Limited; Score: 2	Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District..
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents and employees for all disasters..
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 40	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District	Contact:	Captain Stephen Bayne
Project Title	Develop Inventories of at-risk school buildings	Phone:	(626) 856-4531
Agency:	BPUSD	E-mail:	srbayne236@bpusd.net
Hazard(s):	Earthquake; Flooding; Severe Weather.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		

Environmental Impact:						Historic Preservation Impact:					
High	X	Medium		Low		High		Medium	X	Low	
Importance to Protection of Life/Property and Disaster Recovery						**Risk of Hazard Impact:**					
High		Medium	X	Low		High		Medium	X	Low	

Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix G
Source(s) of Financing:	Internal Funding; Limited to time and resources available from BPUSD staff.		
Project Objectives:	Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.		
Project Description:	Coordinate with the City of Baldwin Park, and neighboring jurisdictions to identify available resources should any part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.		
Proposal Date:	Immediate and ongoing.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters..
	Adversely Affects Segments of the Population Limited; Score: 3	Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District..
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 3	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts..
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District	**Contact:**	Captain Stephen Bayne
Project Title	Develop Inventories of at-risk school buildings	**Phone:**	(626) 856-4531
Agency:	BPUSD	**E-mail:**	srbayne236@bpusd.net
Hazard(s):	Earthquake; Flooding; Severe Weather.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		

Environmental Impact:						**Historic Preservation Impact:**					
High	X	Medium		Low		High		Medium	X	Low	
Importance to Protection of Life/Property and Disaster Recovery:						**Risk of Hazard Impact:**					
High		Medium	X	Low		High		Medium	X	Low	

Estimated Cost:		**Project Duration:**	Ongoing
Value of Facility:	Appendix G	**Value of Contents:**	Appendix G
Source(s) of Financing:	Internal Funding; Limited to time and resources available from BPUSD staff.		
Project Objectives:	Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.		
Project Description:	Coordinate with the City of Baldwin Park, and neighboring jurisdictions to identify available resources should any part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.		
Proposal Date:	Immediate and ongoing.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters..
	Adversely Affects Segments of the Population Limited; Score: 3	Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District..
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 3	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts..
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	

Evaluation Category	Considerations	Comments
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

<table>
<tr><td>Jurisdiction:</td><td>Baldwin Park Unified School District</td><td>Contact:</td><td>Captain Stephen Bayne</td></tr>
<tr><td>Project Title</td><td>Educational Programs</td><td>Phone:</td><td>(626) 856-4531</td></tr>
<tr><td>Agency:</td><td>BPUSD</td><td>E-mail:</td><td>srbayne236@bpusd.net</td></tr>
<tr><td>Hazard(s):</td><td colspan="3">Earthquake; Flooding; Severe Weather.</td></tr>
<tr><td>Critical Facility/Population At Risk:</td><td colspan="3">Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness</td></tr>
</table>

<table>
<tr><td colspan="6">Environmental Impact:</td><td colspan="6">Historic Preservation Impact:</td></tr>
<tr><td>High</td><td></td><td>Medium</td><td>X</td><td>Low</td><td></td><td>High</td><td></td><td>Medium</td><td>X</td><td>Low</td><td></td></tr>
<tr><td colspan="6">Importance to Protection of Life/Property and Disaster Recovery:</td><td colspan="6">Risk of Hazard Impact:</td></tr>
<tr><td>High</td><td></td><td>Medium</td><td>X</td><td>Low</td><td></td><td>High</td><td></td><td>Medium</td><td>X</td><td>Low</td><td></td></tr>
</table>

<table>
<tr><td>Estimated Cost:</td><td></td><td>Project Duration:</td><td>Ongoing</td></tr>
<tr><td>Value of Facility:</td><td>Appendix G</td><td>Value of Contents:</td><td>Appendix G</td></tr>
<tr><td>Source(s) of Financing:</td><td colspan="3">Internal Funding; Limited to time and resources available from BPUSD staff.</td></tr>
<tr><td>Project Objectives:</td><td colspan="3">Develop a complete baseline survey to gather perceptions of private citizens, employees and any interested party regarding natural hazard risks and identify mitigation needs.</td></tr>
<tr><td>Project Description:</td><td colspan="3">Develop, enhance and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District</td></tr>
<tr><td>Proposal Date:</td><td colspan="3">Immediate and ongoing. Long Term Activity</td></tr>
</table>

<table>
<tr><th>Evaluation Category</th><th>Considerations</th><th>Comments</th></tr>
<tr><td rowspan="2">Social</td><td>Community Acceptance Yes, Score: 2</td><td>Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters..</td></tr>
<tr><td>Adversely Affects Segments of the Population Limited; Score: 2</td><td>Conduct natural hazards awareness programs at school sites for students, parents employees and citizens residing at or near the District</td></tr>
<tr><td rowspan="3">Technical</td><td>Technical Feasibility Yes; Score: 2</td><td>Will pursue Federal Grant opportunities.</td></tr>
<tr><td>Long Term Solution Dynamic Process, Score: 2</td><td></td></tr>
<tr><td>Secondary Impacts Yes, Score: 2</td><td>As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.</td></tr>
<tr><td rowspan="3">Administrative</td><td>Staffing Yes, Score: 1</td><td>Efforts will be limited to availability of staff time.</td></tr>
<tr><td>Funding Allocated Yes, Score: 1</td><td>This is a long-term project that will require continuous evaluation.</td></tr>
<tr><td>Maintenance / Operations Yes, Score: 1</td><td></td></tr>
<tr><td rowspan="3">Political</td><td>Political Support Yes, Score: 2</td><td>Make the BPUSD Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District we site.</td></tr>
<tr><td>Plan Proponent Yes, Score: 2</td><td></td></tr>
<tr><td>Public Support Limited Involvement, Score: 1</td><td></td></tr>
</table>

Evaluation Category	Considerations	Comments
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	This will require a tremendous commitment from BPUSD resources.
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 37	**Medium Priority**	

Project Evaluation Worksheet

Jurisdiction:	Baldwin Park Unified School District			**Contact:**	Captain Stephen Bayne		
Project Title:	Complete Capital Improvement Plan Requirements			**Phone:**	(626) 856-4531		
Agency:	BPUSD			**E-mail:**	srbayne236@bpusd.net		
Hazard(s):	Earthquake; Flooding; Severe Weather.						
Critical Facility/Population At Risk:		Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness					
Environmental Impact:				**Historic Preservation Impact:**			
High		Medium		Low	X	High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery:				**Risk of Hazard Impact:**			
High		Medium		Low	X	High		Medium	X	Low	
Estimated Cost:				**Project Duration:**	Ongoing		
Value of Facility:	Appendix G			**Value of Contents:**	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time and resources available from BPUSD staff.						
Project Objectives:	Replace, repair, and/or upgrade all utility systems identified in the Capital Improvement Plan. Overall objective is to protect Life and Property.						
Project Description:	Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.						
Proposal Date:	Immediate and ongoing. Long Term Activity						

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Involve the community to the fullest extent possible.
	Adversely Affects Segments of the Population Limited; Score: 2	
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	This is a long-term project that will require continuous evaluation.
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	
Legal	Authority Yes, Score: 1	
	Action Subject to Legal Challenge No, Score: 1	

Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	This will require a tremendous commitment from BPUSD resources.
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	Insure that all new construction meets or exceeds standards set by the State Office of Architects.
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 1	
Final Score: 37	Low Priority	